The magazine for all CPC and CPC Plus owners

AMSTRAD ACTION

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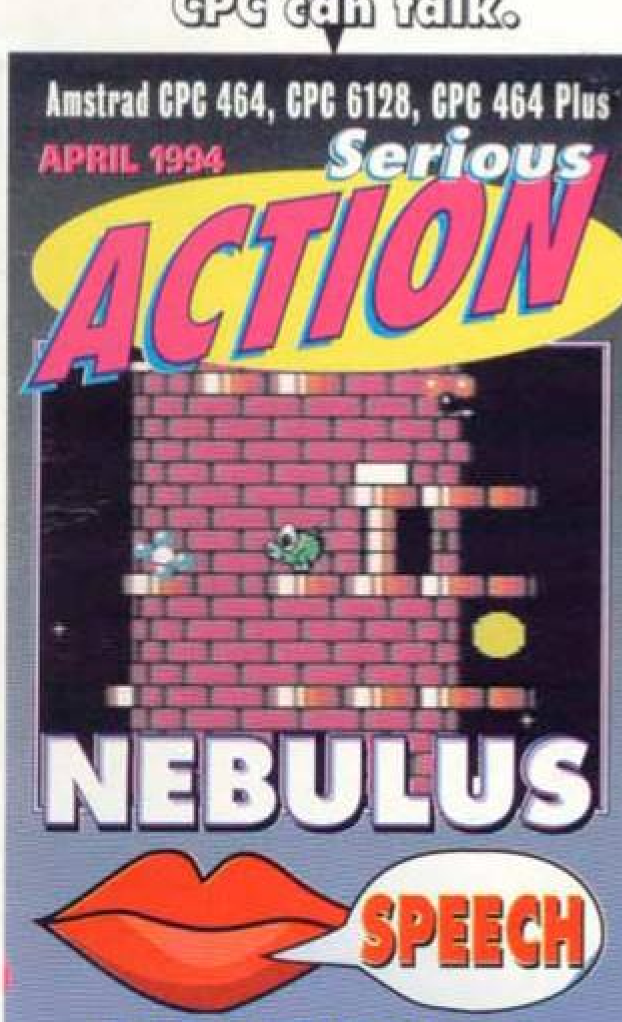
Check out the superb software on this tape...

Nebulus

93% An AA Mastergame. Classic platform action with a twist.

Speech

You'll believe a CPC can talk.



A NEW BREED OF HERO?



Meet Fluff – is she the CPC's answer to Sonic and Mario?

Plus



Copying devices: Killers or cures?

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Line-

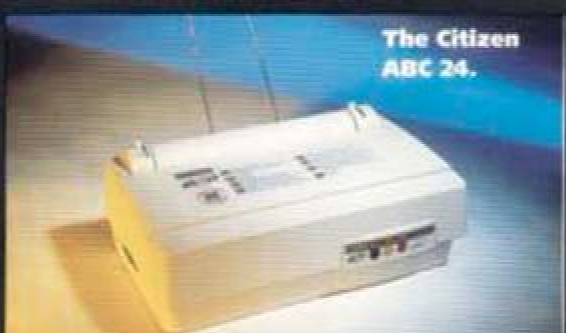
Serious stuff

20 AA guide to: BASIC

You think Take That are popular? You think Jurassic Park is popular? You think EastEnders is popular? Well they're nowt compared to Clur's beginners' guide to programming in Basic.

22 Review: Colour printers

It's the battle of the low-cost 24-pin colour printers. In the red corner – the Star LC24-30. In the blue corner – the Citizen ABC 24. We want to see a clean fight.


The Citizen ABC 24.

24 AA guide to: Machine code

More hints and tips on advanced machine code programming techniques from the man who like end all his articles, 'have fun' and calls himself 'Hairy'.



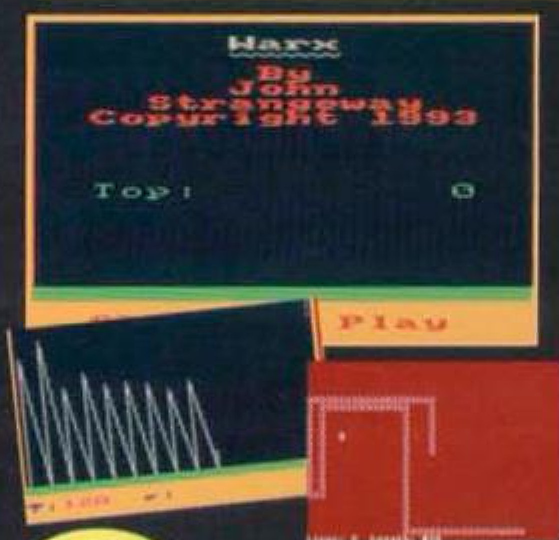


Main feature

12 Copying devices:

Are they just instruments or piracy or are they keeping the CPC scene alive?

That's the question we put to the major software companies, the people who produce the devices and the anti-piracy organisations. Discover what each had to say...



28 Type-Ins

As the battle rages in the letters page about whether Type-Ins should be put back on the covertape, we carry on with our DIY policy. One day you'll thank us.

31 Review: Maps for MicroDesign

Some nifty bits of clip art for MicroDesign that place the whole world at your fingertips (well, actually, it's only the UK at the moment but it will be the world soon).

44 Interview: Elmsoft

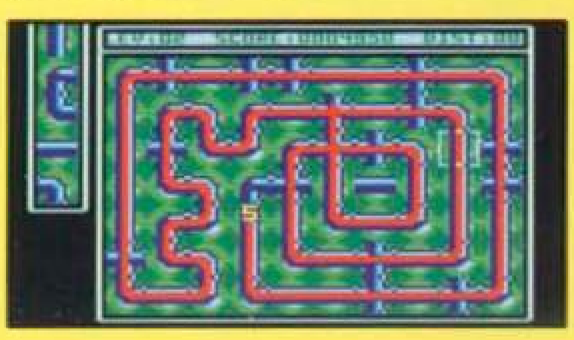
We dared give Zap'T'Balls a mere 85 per cent. Now we give the man who wrote it his chance to explain why 85 per cent was disappointing.


Zap's back.

Leisure zone

26 Reviews: Public Domain

Who needs major software houses? The Public Domain is still producing some great games, applications and utilities. It's also producing some dross. But which is which?



32 Adventures: The Examiner

If your quest for knowledge includes a voyage through the world of CPC text adventures then there is one wise and much-respected sage with whom you are advised most strongly to consult – her name is Debby Howard and she lives on page 32.



34 Review: Fluff

Finally, the game you've all been waiting for... er, no not Street Fighter 2, the other one. Yes, Radical's Fluff has arrived and we give it the full Amstrad Action review treatment. So, does it set new standards in CPC platform games or has it fluffed it? (I can't believe we just printed that.)



-up

Bits'n'pieces

4 Covertape

Everything you need to know about that plastic case containing some strange brown tape-type stuff that was stuck on the front of this magazine.



8 Amscene

Approaching the news food trolley with a very wide plate, because fact into doubt won't go, we take the facts and turn them into news (or something like that).

9 Amscene Directory

It's a list. But one heck of a list. Forget the civil list – this is the list to be included in. Unless you want to get paid loads of money for doing nothing, that is.

11 Power-up

Meet the most fearsome bunch of end-of-level guardians you're ever likely to meet. Make sure you're mentally prepared.

33 Reader Ads

Have you noticed how many answers to your letters in Reaction contain the words, "check out our Reader Ads service"? You should you know – it's worth your while.

40 Back Issues

It's the sale of the century – now you can get tons of dosh off back issues of Amstrad Action. Don't miss out on the bargains.

46 Reaction

Dear AA

Every action has an equal and opposite reaction. In other words, everything we write prompts some kind of response from you lot, and this is where we print those responses.

50 Next Month

Ah well, we nearly got it right last month – Fluff and the copying devices articles both made it into this issue, but Basic Idea went walkies (full story in Amscene). Next month you'll be able to find out how accurate we were this month.

36 Round up: Shoot-'em-ups

This month's installment of The Good, The Bad And The Ugly takes a look at what is probably the most popular form of computer game – the shoot-'em-up.



Exolon – it's a blast.



Smash TV – is it a classic shoot-'em-up?

41 Game tips: Cheat Mode

When all else fails, cheat. And here are three pages packed with essential info that'll help you do just that (so long as what you're a failure at is a CPC game, that is).

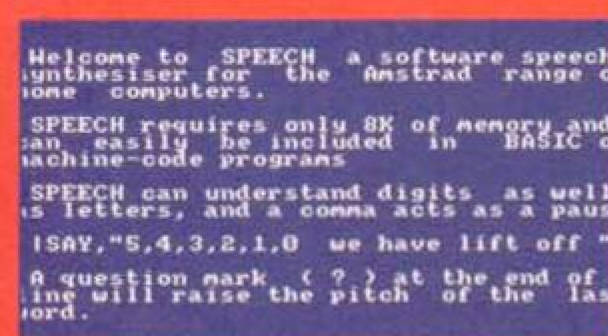
Serious ACTION

And on a packed covertape this month...



Nebulus

We're talking unique here. There's never been another game quite like Nebulus. It's a platformer, sure, but one with a difference – you've got to make it to the top of a circular tower using the exterior staircase, the problem being that the staircase looks like it's been designed by Hieronymous Bosch.



Speech

Ever wondered what your CPC's interpretation of Hamlet would be like if only it could speak? Here's your chance to find out (but don't expect any Oscar nominations). Speech let's your CPC do the talking, as long as you tell it what to say.

Turn the page for full details on the covertape.

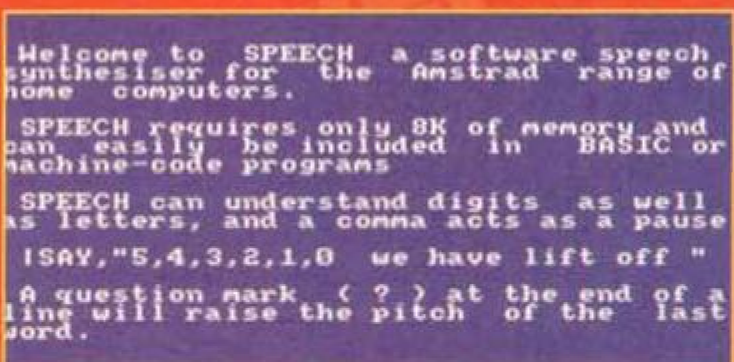


Serious ACTION



SPEECH

Happy talky, talky, happy talk, talk about things you like to do (like climbing towers and making your CPC speak). You've got to have a tape, if you don't have a tape, how's Clur gonna make your dreams come true?



Dave spent ages trying to get *Speech* to say, "Seek, locate, exterminate," like a Dalek. Sad, really, isn't it?

S*peech* is the sort of program that any self-respecting master criminal should never be without. Perfect for those times when you need to disguise your voice or record anonymous messages. In fact, Blofeld's failure to take over the world can be attributed to the fact that he never had a copy of *Speech* (*er, I think the hard sell's going a tad OTT, Clur – Dave*).

Just type in what you want it to say and your Amstrad will speak. And not only will it obey your direct commands, but with a bit of fiddling you can use *Speech* as part as your own programs to produce synthesised speech or some really odd sound fx.

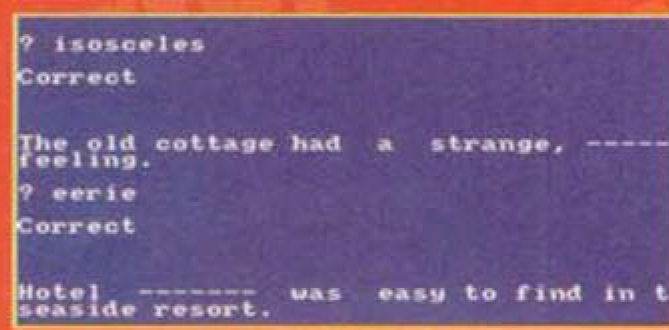
Load the program the normal way (using control and the small enter key) and *Speech* will load – you'll have return a couple of times while the program is loading so keep an eye on the screen. Once it's loaded the program will be ready for you to type in words for the CPC to synthesise. There are three commands available to you: SAY, SPEAK and PITCH.

|SAY

For example: |SAY,"HELLO"
The say command will take the word in quotes, convert it to a set of phonemes and speak those phonemes. Phonemes are just the basic sounds that make up a spoken language; look in a dictionary and the words will be spelt out in phonemes in brackets before the definition.

|SPEAK

For example: |SPEAK,"/HEHLLOWS"
This tells Arnold to bypass his phoneme dictionary and only speak exactly what is written; that's why hello needs to be spelt phonetically otherwise the CPC just produces a weird noise.



This is the spelling test section of the program – cue a caption full of witty spelling mistakes, ho, ho.

Getting your programs to talk

I know a lot of you won't need this, but for those who are interested in machine code here are some notes that should help you if you're thinking about using *Speech* in your programming.

Creating a version of Speech to run at a fixed address.

The standard *Speech* program loads into memory at the top of the block of memory reserved for the Basic system. The program requires 7,880 bytes of memory and so the system variable HIMEM is reduced by this amount and the space available for Basic programs is reduced by the same amount. However, the position of HIMEM is not fixed and depends on whether any resident system extensions (RSX's) have been loaded before *Speech*. This means that the program must be relocated so that it will run correctly at whatever address it is loaded. This is done by the loader program SPEECH.BAS.

The *Speech* program is stored in two files, SPCODE.BIN and SPDICN.BIN. It has a number of sections. SPDICN.BIN is the dictionary file used in converting English language text into a phonetic form. This file can be edited using the dictionary editor EDIT.BAS (see later). The file SPCODE.BIN consists of three sections. These are:

1 The English text to phonetics translator.
2 The RSX operating system interface.
3 The phoneme pronouncer.

This last routine can be used independently from either BASIC or machine code programs.

The easiest way of incorporating the *Speech!* routines into a machine code program is to make a copy of the routine which has been relocated to the required address. To do this you must make the following temporary changes to the *Speech* program.



1 Initialise the machine so that no RSX routines are loaded and the maximum amount of memory is free. Do this by pressing the ESCAPE, SHIFT and CONTROL keys simultaneously.
2 Load the *Speech* loader program (SPEECH.BAS).
3 Choose the address at which you would like the routine to load and run at.
4 Set the variable RELAD in line 102 to the desired load address.
5 Replace line 220 with: 220 STOP
6 Now type RUN and press RETRUN. *Speech* will be loaded and the routines relocated. The program will now stop and print the Break message.

|PITCH

For example: |PITCH,NUMBER(1-20)

The command PITCH followed by a number alters the speed at which the phonemes are spoken. 20 is the fastest and so gives the impression of being spoken at a high pitch and 1 is the slowest and so is the lowest in pitch.

Back to school

The next program on the tape is a spelling test with a twist. To load the test program you will need to have *Speech* already loaded into your computer. Type RUN "SPELL" to load and run the test.

There are three difficulty levels: A, B and C. The lowest level, C, tests you on words like carots; level B takes you on to more complicated words like kayos while level C tests you on things like acomoddation and parlimentry (and yes, we do that know we've spelt them all wrong here – we don't want you cheating by just referring back to this page).

The test takes the format of a sentence with one word missing; the computer will say the missing word and you will be prompted to type it in (if you want to hear the word again all you have to do is hit return). Don't worry about things like upper case and lower case letters – it's a test of spelling, not grammar.

Disc crazy

It's really easy to covert your *Speech* program to run from disc. Make sure that you don't write over your original cassette version while you're doing this. Do a catalogue of the tape by typing CAT and then hit return; make a note of exactly what each section of the program is called. Then load each section separately on to your Amstrad and save them on to disk. Now all you have to do is make a few changes to three of the programs. Load these three programs in separately, edit them and write them over the original files on your disk.

Change line 90 in SPEECH.BAS to read:

```
90 |DISK
```

REMEMBER – don't alter the files on the cassette version of *Speech* supplied with the magazine; only alter them on your disk copy of the program.



Let's say it all together, you, me and Arnold: Thexx ixx Armxraod Axion.

The Speech memory map

(for people who like that sort of thing)

```
|              |
|--------------| start + 7880 = old HIMEM
|              |                 position
| SPDICN.BIN   |
|              |
|--------------| start + 5442
|              |
| Text         |
| Translator   |
|              |
|--------------|
|              |
| RSX          |
| Interface    |
|              |
|--------------| start + 4493 = initial entry point
|              |
| Phoneme      |
| Producer     |
|              |
|--------------| start = New HIMEM position + 1
|              |
| Basic        |
| System       |
|              |
```

Loading instructions

Getting started

To load up either side of the tape, simply rewind it, hold down CONTROL and press ENTER. Owners of 6128s or 664s will have to switch their machines to tape by typing |TAPE first.

Tape to disk offer

If you've got a disk drive and you want to get a disk version of this month's tape it's easy. Whip out your scissors and cut off that token at bottom of this page, chuck it in an envelope along with your name and address and a cheque or postal order for £2 made out to Ablex Audio Video, then send off the whole kit'n'kaboodle to:

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Ablex Audio Video,
Harcourt, Halesfield 14,
Telford, Shropshire TF7 4QD.

Loading troubles?

We make the greatest efforts to ensure our covertapes work properly, but if you've tried all that and your tape's still not loading then pop it in the post (with a note telling us your name, address, type of CPC you use and a brief description of the problem) to:

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☎ 0952 680131

NB When returning faulty tapes could you please also include a stamped, self-addressed envelope. Thank you.

Please do not return faulty tapes to the AA office. There is no point. We cannot replace them here. Send them to Ablex, not us. Send them to us and it'll take you twice as long to get your tape back (if at all), and it's much more likely to go missing in the post. You have been warned.

7 Save the block of code you want using the SAVE command, eg: SAVE "NSPCOD.BIN",B,loadad,len.

The value of LOADAD will normally be 34,740 . To save the whole routine LEN should be 7,880, though this will be different if you have made any changes to the dictionary. To save only the SPEAK routine LEN should be 4,493. If you have made any changes to the dictionary then the value of LEN will be given by the expression LENTAB + LENGTH (where LENTAB and LENGTH are variables in SPEECH) .

You should now have a file which can be loaded back into the machine at a fixed address and called from Basic or machine code. If you're loading the full routine you'll need to introduce it to the AMSDOS operating system by CALLing the routine at an address equal to LOADAD + 4493 (where LOADAD is the routine's load address). The following is a simple loader for a file that has been relocated to load at 32000:

```
10 start=32000: length= 7880: init =
start + 4493
20 MEMORY start-1
30 LOAD "NSPCOD.BIN",start
40 CALL init REM initialise the routine
50 |SAY," SPEECH! has now loaded "
...
9999 END
```

Just speak to me

If only the SPEAK routine is loaded then there's no need to initialise it. The SPEAK routine on its own can't be called using the RSX commands |SAY, |PITCH, |SPEAK, etc. To use the SPEAK routine alone it's necessary for the main program to poke the required phonemes into an area of memory at the start of the routine. This area occupies the first 255 bytes of *Speech*. The phonemes must be stored as upper case letters and digits and must be followed by a newline character CHR$(13). The routine is called at address START + 256 (where START is the address of the routine).

```
100 REM a mini version of SPEECH! has
been loaded at address start
110 phonemes$ = "/HEHLLOWS IY AE2M AY
KOOMPUWTER"
130 FOR i = 1 TO LEN(phonemes$)
140 POKE i+start-1,ASC(MID$(phonemes$,i,1))
150 NEXT i
160 POKE i+start,13
170 CALL start + 256
```

Calling Speech

In this section the address start is the load address of the *Speech* routine. The pitch of the sounds can be altered by poking a number corresponding to the required pitch into the location START + 285. This number must be between 3 and 255, 3 being the highest pitch, 255 being very low.

The sound channel through which *Speech* operates can be altered from its initial value, ie, through both channels, by poking one of the following values into the location START + 301.

8 - sound through left channel.
9 - both channels.
10 - right channel only.

Oh yeah – and have fun (as Simon would say).

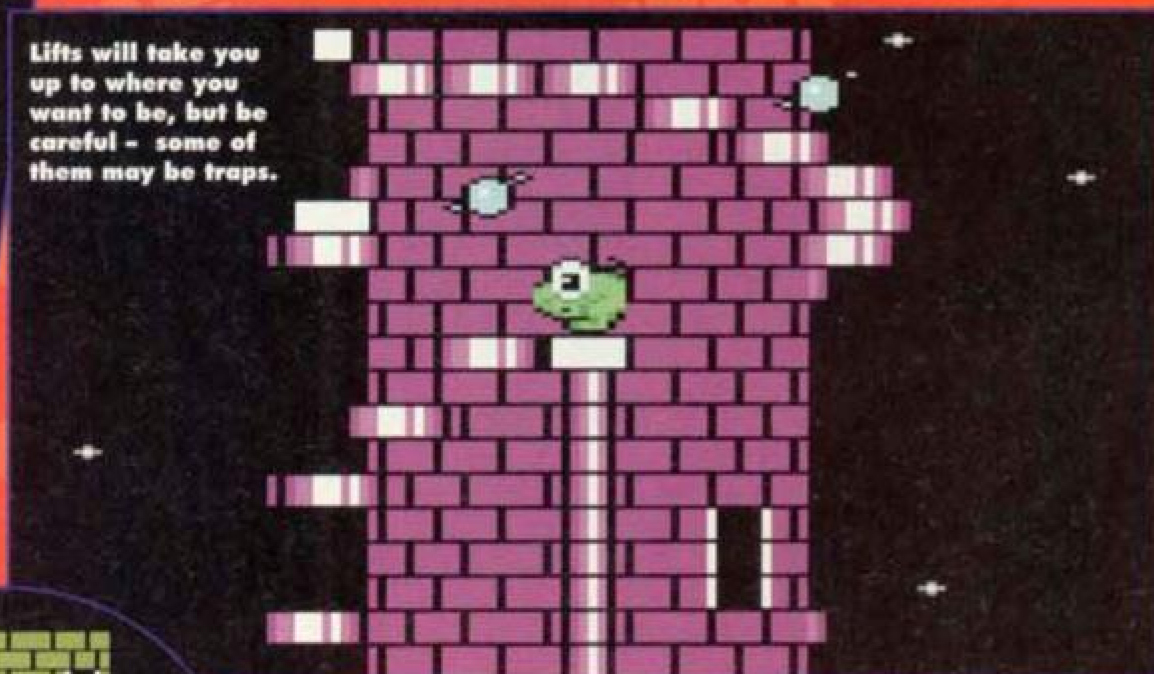
Disk 103 Token

NEBULUS

When it comes to architecture, the alien brickies who built the towers in Nebulus frankly haven't got a clue. But somehow you've got to navigate your way to the very top of no less than eight of these structural monstrosities. It ain't going to be easy.



Some of the platforms rotate and will push you back the way you came.



Lifts will take you up to where you want to be, but be careful – some of them may be traps.

There have been times this month when it's been difficult to get any work done because there have been so many people crammed into the office. Why? *Nebulus*, that's why. It's caused as much of a stir in the office as *Elite* did. The Nintendo and Sega folks from the neighbouring offices have been popping round at regular intervals to have a blast – but then, we've been popping round to *Super Play* recently to play *Puyo Puyo*, so I suppose it's only fair. *Puyo Puyo* just in case you didn't know is a *Tetris*-style game on the SNES with a fantastic two-player mode, and it has one important thing in common with *Nebulus* – an addictively simple concept.

All you have to do is guide your amputated frog-like sprite to the top of a tower where a rocket ship will be waiting to whisk him off to another tower (it's not a very meaningful job for the poor little chap, but you have to get work where you can). Frog-features can walk, jump or shoot. Notice the 'or' in that last sentence; he can't walk and shoot at the same time, because if he's moving pressing fire will make him jump – he has to be stationary to use his weapon.



Sometimes you have to go down to go up, if you see what I mean.

The gun doesn't help things much, though, because loads of the aliens you encounter are completely invincible. The only way to get past 'em is to avoid 'em, by running under, jumping over or just making sure you don't go anywhere near 'em.

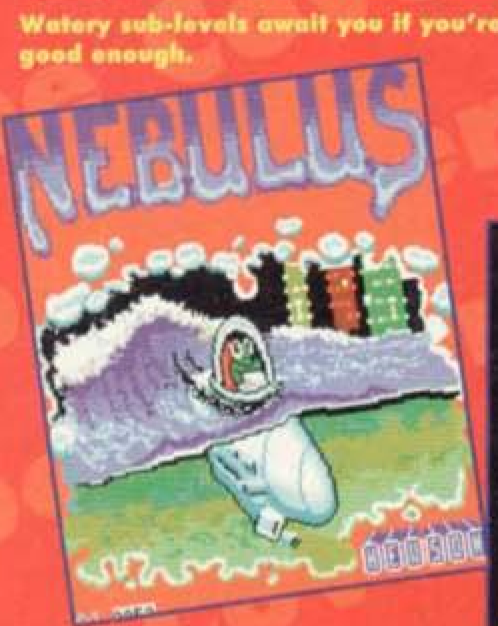
There are eight towers to tackle. It may not sound like a lot, but believe me, unless you're some sort of Einstein, it'll take you a fair while before you set foot on the roof of the final tower. But when you do, don't give up there – go back and see if you can do it all any quicker.

COMPLETE CONTROL



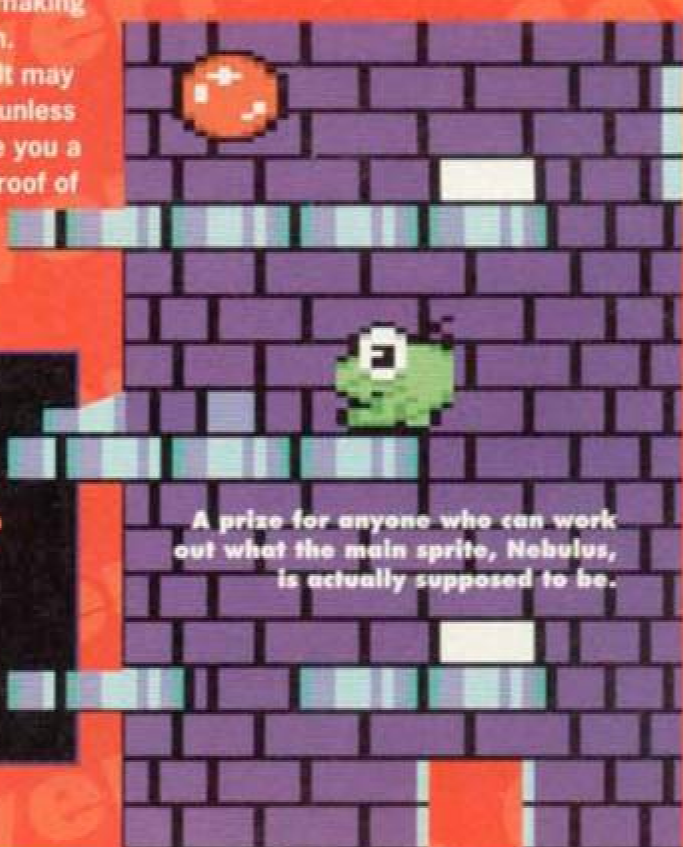
Left and right control your sprite's movements, up and down activate the lifts (if he's standing on one). Fire button 1 makes him jump if you're moving and makes him fire his weapon if he's standing still.

Watery sub-levels await you if you're good enough.





Listen out for the beep when the wibbly red lumpy things come on screen.



A prize for anyone who can work out what the main sprite, Nebulus, is actually supposed to be.

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Amscene

What's hot and not what's not on the CPC news front.

A decade of the CPC



Well, hey, life's just one big party for AA Ed Dave Golder (he wishes...)

We finally got the office cleared up after the massive issue 100 celebrations (and Simon finally recovered from his hangover) when realisation dawned – this year also marks the 10th birthday of the CPC.

It was on 11th April 1984 at the Westminster School in London that Alan Sugar first unleashed the CPC and changed home computing as we know it. It's a shame that subsequent machines haven't kept the CPC at the forefront of micro technology but there's no denying that the Colour Personal Computer has been a tenacious little beast, proving to be the most durable of the eight-bits, outlasting the Spectrum and the rapidly fading C64. When the major software stopped producing games, both those old stalwarts faded rapidly, but the CPC has survived because it was more than just a games machine; CPCers' interest in the serious side of computing and coding has kept the CPC scene buzzing long after the budget games stopped coming.

Not that there aren't still games coming out for the CPC. *Fluff* (though much delayed) looks set to be excellent and the forthcoming *Megablasters* also looks set to cause a storm. **Dave**

Campursoft conveyor belt continues

Campursoft have announced that their next projects are a video titling package and a revamped CAD (Computer Aided Design) program.

The company have acquired the rights to an old CAD package called *PCB Designer* which they intend to update and improve. There are few details on the video titling package as yet.

Meanwhile, *Basic Idea*, Campursoft's advanced on-disc coding tutorial which we were due to review this issue, has been delayed but should be out soon. The company's new version of the DTP package *MicroDesign Plus* should also be available in a few months.

Contact Campursoft on ☎ 041 554 4735.

The last of the 3-inch discs?

The 3-inch disc has finally gone out of production. Maxell, the last company to produce the disks have finally pulled the plugs on this non-standard disc format. The reason, the company states, is simply that they are not selling enough 3-inch discs to make them profitable.



Street crime?

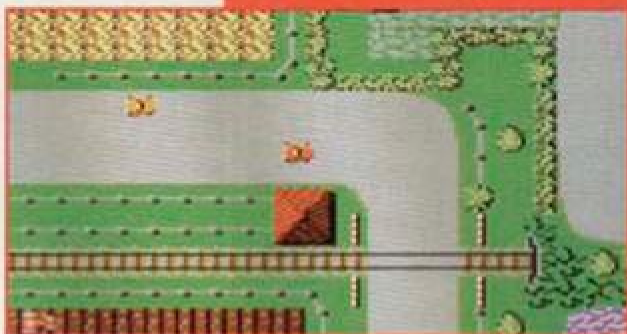
Mystery surrounds the origins of *Street Rally*, the game from CPC Now! we reviewed in issue 101.

First, we found a virtually identical game on the C64, identical apart from two major factors – the C64 version was in Italian and it was PD.

Then we had a phone all from a Mr David Gardener who was surprised to see a game he had picked up a couple of years ago in Blackpool called *Street Machine*, being reviewed under the name *Street Rally* as a new game. *Street Machine* came from a software company called Powerhouse and was written by a Kevin Stone.

James Hockney of CPC Now! says that when he came the game *Street Rally* "it didn't have any copyright notices on it" and so decided to market it here.

If anyone else can shed any light on this affair, please contact us here at the *Amstrad Action* office. But whatever you do, don't buy the game.



Is it *Street Machine* or *Street Rally*? Is it any good?

Robot reopened

Robot PD, run by *AA*'s own Richard Fairhurst, is now back in operation, but with a slightly new look. It will only be dealing in software which it produces itself (stuff that Richard's written, basically). This includes things like the DTP package *PowerPage* and *ChaRleyTraCker*, a new music package.

All discs cost £2.95, but you need to include a stamped addressed envelope to cover the return postage.

Richard's new fanzine, *Better Than Life*, which includes a disc, is also available now from Robot, priced £2.25 plus an SAE.

Contact Robot at 2 Trent Road, Oakham, Rutland LE15 6HF.

Beng! come bouncing back

The pan-European coding group Beng!, responsible for many of the best games on the PD circuit, is picking itself up and striking out in new directions after losing a few key members (as reported in last month's *Amstrad Action*).

The group has divided into two sections – one for the CPC the other for the PC. This means that members tempted over to the PC can remain in touch with the CPC side of things. "Now Beng! will rise again as the best group on the CPC," reckons Beng! coder DSC.

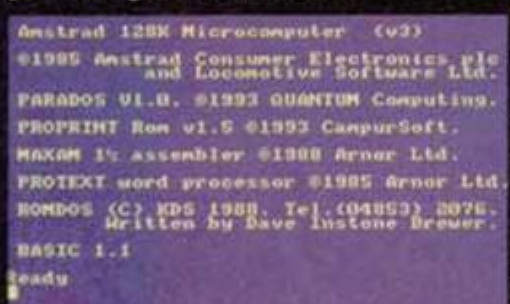
Quantum relocate... again

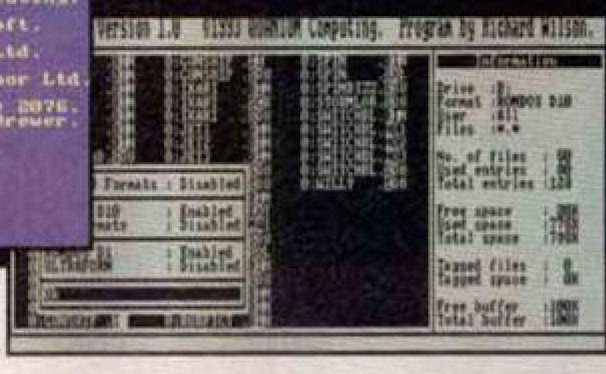
Leaving a trail of unhappy customers behind them, Quantum recently relocated for the second time within a few months. The company, which is the sole supplier of the *ParaDOS* utility, has run into trouble and had major delays in sending products out owing to, "a problem with our ROMs suppliers," according to technical director Dan Heatley.

"I would like to apologise to my customers," says Heatley. "These ROMs will be dispatched as soon as possible. Quantum is undergoing a few organisational changes (hopefully for the better). Could anybody who is still waiting for Quantum stuff hold onto their pants and drop us a line just to remind us of their grievances."

Quantum is now based in Swansea and is being headed by Dan Heatley and Matt Gullum of Presto PD fame. The new address is 170 Tyn-Y-Cae, Alltwen, Pontardawe, Swansea, West Glamorgan SA8 3DN ☎ 0792 830329.

This might be the only glimpse you ever get of *ParaDOS*.





ParaDOS – have you seen yours?



If you want to be included in the Directory, or you know of any information that needs to be updated, write to: Amscene Directory, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

Amscene Directory

PD Libraries

Amsof
Lissanly, Cloyne, Middleton, Ireland
Large range of European stuff.

Braysoft
2 St Margaret's Road, Hayling Island, Hants, PO11 9BP.
3-inch disks only.

Colrob PD
9 Aviemore Road, Hemlington, Middlesborough
New tape-only PD library

Dartsma
☎ 081 855 7790
49 Heavitree Road, Plumstead, London SE18 7QX.
They have also taken over Debbie Howard's Adventure PD collection.

Demon
47 Hilton Avenue, Hall Green, Birmingham B28 OPE
3.5-inch discs available.

Disk PD
Lower Dexbeer, Dexbeer, Holsworthy, Devon EX22 7LA.
☎ 0288 82348

GD PD
49 Woodville, Barnstaple, Devon EX31 2HL

Image PD
Darren Dodds, 15 Elmwood Drive, Ponteland, Newcastle-Upon-Tyne NE20 9QQ
Also provides a digitising service.

PD Fun
41 Michaelgate, Kirkby Lonsdale, Via Carnforth, Lancs LA6 2BE
A policy of 'no serious software'.

Power PD
83 Longleat, Great Barr, Birmingham, West Midlands B43.

Presto PD
33 East Lane, Sandiway, Northwich, Cheshire CW8 2QQ

Signal Software
83 Longleat, Great Barr, Birmingham, West Midlands B43.

Sheepsoft
☎ 0446 736529
Based in Wales, of course. Baaaaa

Sleepwalker PD
Disk software: Joe Moulding, 9 Meeting House Lane, Balsall Common, Nr Coventry CV7 7FX
Special offer to *AA* readers – if you send Joe a disk he'll send you a free selection of PD. Only one selection per person, please.

The Vault
43 Windfield Gardens, Clybaun Road, Galway, Ireland.
☎ 010 353 91 28204
A new but rapidly expanding library with lots of European software.

Ultimate PD
26 Woodside Road, Irby, Wirral, Merseyside L61 4UL
New PD library that specialises in 3-inch disk and tapes and has a wide selection of 'mathematics' programs available (whatever that means).

Fanzines

Amszine
Gayton, Laneside Road, New Mills, Via Stockport, SK12 4LU
☎ 0663 744863

The Eliminator
14 Station Road, Riccall, York, North Yorkshire YO4 6QJ

CPC User
☎ 0329 234291
The UAUG's fanzine.

CPC Undercover
37 Trimingham Drive, Brandlesholme, Bury, Lancashire
A technically-minded fanzine that's also on the look out for writers.

Ultra Games
20 Lancaster Terrace, Chester-Le-Street, Co Durham, DH3 3NW
Cassette-based multi-format fanzine from the man who used to produce *Am-Com*.

User Groups

Amstrad Contact
☎ 0403 753348
Sussex-based group that also runs a technical helpline for CPC users.

UAUG (United Amstrad User Group)
☎ 0329 234291
An *AA*-recommended user group.

WACCI
☎ 0602 725108
If you're seriously into the techy side of the CPC then you really shouldn't be missing out on WACCI. They're fab.

Independent Software Companies

Avatar
☎ 0274 602180
Suppliers of Phil Craven products, and a few of the Bonzo titles.

Campursoft
☎ 041 554 4735
You name it, they do it, really – take a look at the interview in ish 96.

DMP Software
89 Wolverhampton Road, Codsall, Wolverhapton WV8 1PL
Over 30 home-programmed games and serious programs on both tape and disk.

Gary & Scott Kennedy
☎ 061 736 1204
Authors of *Trakers*, a truly great CPC game (don't argue).

New Age Software
☎ 01049-711-4201920
Responsible for *Zap'T'Balls*, the excellent *Soundtrakker*, and, hopefully, a few more titles pretty soon.

Radical Software
☎ 081 856 8402
Still releasing top-quality, new software for the CPC. If you've written a program you think is worth releasing this lot would love to hear from you.

SD Microsystems
☎ 0760 720381
Specialists in business software – take a look at the feature in *AA93*.

Sentinel Software
☎ 081 876 7032
Suppliers of selected STS titles and a few original products. They don't arf churn 'em out.

Siren Software
☎ 061 724 7572
It'd take a hell of a time to list everything they do – check out their ad (it's the yellow half-page one).

VerySoft
450 Roughman Road, Wingfield Estate, Rotherham, South Yorkshire.
The people who brought you *The Gripper* and *Comparitor*. They're also on the look out for new programmers.

Big Softies

So you can ring them up and hassle 'em about releasing some new stuff.

Alternative Software
☎ 0977 797777

CodeMasters ☎ 0926 814132

Gremlin/GBH ☎ 0742 753423

Ocean/Hit Squad
☎ 061 832 6633

Titus/Fox Hits ☎ 071 700 2119

Touchdown ☎ 0268 541126

Virgin ☎ 081 960 2255

US Gold/Kixx ☎ 021 356 3388

Zeppelin Software
☎ 091 385 7755

Hardware

Datel ☎ 0782 744707
The place to go for mice, printers, memory expansions, all that sort of stuff.

Microform Fax: 0772 703131
Drives, upgrades, disks, all sorts of techy stuff like that.

Romantic Robot
☎ 081 200 8870
Creators of the Multiface.

WAVE ☎ 0229 829109
Suppliers of loadsa good stuff – their ad is on the back cover.

Software suppliers

OJ Software ☎ 0257 421915
Fast friendly service, the ad says. And it's right. They've got an impressively wide variety of software on offer as well.

Software Cavern ☎ 0628 891101
Probably the largest selection of CPC software for sale in the known universe.

Software Express
☎ 0463 240168
A new company in Inverness.

Tronics North
☎ 010 6177 253 766
PO Box 7419, Garbutt, Queensland Australia, 4814.
The largest supplier of software and CPC bits'n'pieces in the southern hemisphere.

Mail Order

Trading Post ☎ 0952 462135
They're offering loads of cut-price cartridges at the moment.

Trojan ☎ 0554 777993
The people to speak to for cartridge and lightgun stuff.

Wizard Games ☎ 0723 376586
Games, games and yet more games, basically on every imaginable format.

Upgrades and repairs

Avatar
☎ 0274 602180

WTS Electronics
☎ 0582 491949
Amstrad-authorised repairs specialists.

How to be sure you'll get 104

Be prepared for anything. Expect the unexpected. You never know, it could happen. You're local newsagent might (are you sitting down?) run out of copies of *Amstrad Action*!

You might think it's one of those things that only happens to other people. But it could happen to you. What you need is some insurance and we have the policy to suit you. All you have to do is fill in the policy document to the right and hand it to the second party (your newsagent) and he'll save a copy of the third party (*Amstrad Action*) for you every month.

MAG*SAVE

Dear Newsagent,
Please save me a copy of...

AMSTRAD ACTION

...every month. It comes out every third Thursday of the month and is produced by those wonderful people at Future Publishing.

My name ....

My address ....

....

....

Power-up

The AA crew muscle in the the platform action in Fluff as the weirdest bunch of computer game baddies you're ever likely meet.

Fluff

The star of this month's *AA* rave meets some mightily bad nasties in the real game, but their nothing compared to the horrors of facing the AA crew. It's a fate worse than dying three times a game.

Simon Forrester, aka The Happy Hippy Hairy Monster

"Yeah man, peace to the world. Except to those who try to get past me 'cause that'll mean bad vibes and you'll have to wear flares for the rest of your life. (Look, do I really have to say trash?)"

Playing tip – Hack into the tree to get past the Happy Hippy Hairy Monster; he'll be so phased by the blatant damage you're doing to a beautiful living thing that he'll faint.



Clur, writer and general dogsbody, aka The Talk The Hind Legs Off A Donkey Monster

"It's like this, see, me and a mate were walking down the high street and we were passing that hippy shop, you know the one that sells those pointy candles... the one where I saw Rob Newman buying some incense... you know he was in that *Mary Whitehouse* thing... I saw them live in Bristol, you know... anyway what was I saying...?"

Playing tip – Deal with Clur like you'd deal with a nagging Aunt. She may sound scary but her bark is definitely worse than her bite. As long as you're quiet she won't notice you sneak past.

Lisa Kellett, art editor, aka The Shop Until You Drop Monster

Lisa will go to the ends of the earth to protect her purchases. Here's a woman who definitely doesn't claim on her Barclay card insurance. Go anywhere near her shopping and she'll whack and wallop you black and blue with a whole range of carrier bags (including a rather nifty paper one from Boules). It doesn't hurt that much but you're left with a few nasty bruises and a hurt pride.

Playing tip – The only way to halt the shopaholic from hell is to take away her credit cards at which point she is rendered utterly powerless. Pop into the nearest shop, pretend to be a sales person and when she pays for the goods keep her card. Just keep on reminding yourself that it's for her own good.

Dave Golder, editor and boss (or should that be bossy?), aka The Fiendish Food Flinger

The problem with Dave is that he finds it hard to be threatening; he's got such soft sweet nature just can't cope with being a baddie (*is someone taking the mick? – Dave*). So instead of attacking you, Dave just nicks all your food and eats, thus draining all but a smidgen of your energy. To add to that, all the food makes him even fatter and he blocks off the exit he's guarding completely. Avoid him at all costs.

Playing tip – The only way to get past Dave is to lure him away from his post with a trail of grub (tuna butties work really well).

Back-up and

To back up or to not back up? That is the question that Clur Hodgson puts to the CPC industry to find out whether software backing-up devices are the root of all piracy or essential utilities that are keeping the CPC scene alive.

Backing-up in progress

Copying devices come in many shapes and forms, but they're mainly distributed as programs on disc. A lot of them are actually public domain, but for a really good one you're going to have to pay. It won't cost you a lot of money but at least you'll have the support of the company you bought it off if you get stuck.

What most copying devices do is break the program up into handy little chunks neat enough to store in memory and then transfer the sections separately onto a new disk, so that you end up with an exact copy, track for track, sector for sector, byte for byte, of the program you started with.

Some backing-up programs also contain 'cracking' elements which crack into software code in order to get around anti-piracy protection. File under controversial.

Take a look at any stereo system and chances are it'll feature a tape deck which you can use to record CDs, LPs and perhaps even other tapes. Odd that. Why? Because home taping is illegal. Selling stereos with equipment that enables home taping isn't, but home taping is. Even if you only want to record the stuff for personal use, in the eyes of the law, if you do it, you're a criminal. Home taping is killing the recording business, apparently.

A similar slogan is familiar in the home computer market – software piracy is killing the software industry. And there are programs available to CPC users that seem to parallel tape decks, in that they enable you to make copies of software – they are known rather euphemistically as 'back-up devices'. But the law isn't quite as cut and dry when it comes to copying software as it is in matters concerning tapes and CDs.

Making copies of games and giving them away or selling them is definitely illegal, there's no getting round that one, no matter how you try to explain it away. But what a lot of people don't know is that it is now legal, thanks to a new EC law, to make back-ups of your software.

The law isn't very clear, though; a lot of factors come in to play to decide whether you are allowed to make back-ups or not. The law says that you are allowed as long as it's necessary for the smooth running of the software – what that actually means in real terms is anyone's guess. But whatever you do, remember that any back-up must be for your use and your use only – if you sell the original second hand then you must dispose of your back-up.

But is it piracy?

The problem is that backing-up devices and piracy have become irrevocably linked in the minds of many people. It's really difficult for a lot of people in the industry to look at the issue of backing up software without looking at the issue of piracy. For example, Roger Hulley from Alternative Software says: "Let's face it, 99 per cent of the back-up devices available, as we all know, are used for piracy."

More and more back-up programs seem to be available for the CPC, but is it legally or morally correct to use them? After all, many games have anti-piracy code to stop you copying them, while many of these backing-up devices also include 'cracking' software for getting around these anti-piracy measures. And what about the view, adhered to by people like Rob Scott of Avatar, that, "how can it be wrong to copy games when you can't actually buy them any more?"

Paul Miller of Hit Squad, however, wouldn't agree with that: "Using the excuse they can't buy them any more is totally unjustified because it's not true. The full Amstrad range from Hit Squad is available through branches of Toys'R'Us if not through Ocean (*Hit Squad's parent company – Dave*) itself. There are 44 Toys'R'Us stores in the country so it shouldn't be that much of a problem to get hold of the games."

Hmm, this comes from a company that, the very next day, told us that all their CPC games were on the way to the incinerator. There are very few CPC owners who agree that getting hold of games was that easy.

And the vast majority of people using software back-up devices are not necessarily crooks. After all, even the producer of games like *Fluff*, Rob Buckley of Radical Software, admits that: "I don't usually put any copy protection on my stuff anyway, because people will want to make back-ups of their software".

Some people take an even more extreme view. One reliable source from within the computer industry reckons that: "unofficially I don't think copying games is all that bad a thing. A large percentage of the circulation of games might be pirated copies but that doesn't mean that if they didn't have that illegal copy they would have gone out and bought the game. A lot of the time they don't actually play them, the game just sits in a box somewhere. If someone copies a game from a certain producer, plays it and thinks that it's alright, then the next time they have the money to buy stuff they'll think, 'that producer's game was okay so I'll give this one a go'."



'be damned?

Basically, there are a lot of honest people out there who just don't want to risk losing their favourite game or utility forever because of the unreliability of data storage systems.

Is it a crime?

So are backing-up devices a crime against humanity leading to hundreds of unemployed software company bods or are they a necessary part of any computer users' collection? We thought the best thing to do was to ask the people in the software industry who count. No, not the accountants, the producers of the software that you want to back up; no one has more of a stake in the debate than them. Some of their views might surprise you.

"They should put their intelligence to better use"

PAUL MILLAR, HIT SQUAD

"I don't have a problem with legitimate owners of your software making back-ups for their own use at all. But as for people copying our old games using the excuse that they can't buy them any more, that's totally unjustified. If the pirates are that talented that they can hack into our old games to copy them then they should be putting their intelligence to better use and going out and developing software themselves.

"If we ever came across anyone who was pirating our games we'd pass the information straight on to FAST and let them deal with it."

"Blatant copyright infringement"

CRAIG JOHNSON, KIXX

"I think if back-ups are strictly for personal use and only used for backing up legitimate software then I've no real reservations, purely because tapes are notoriously unreliable and through continual wear and tear they may well give way. I don't object to an individual making one back-up copy of a particular game for their own personal use but if a company is going out to market copying equipment for non-personal use then that's a different story. As for the games not being available and that making copying okay, we have got quite an extensive range of products for the CPC, somewhere in the region of 80-90 titles and I appreciate that there is a difficulty in getting hold of them but they are all available from us so that argument doesn't cut it with us. Any copying of any product is, regardless of the reason, illegal. It's blatant copyright infringement and tantamount to theft. In

Watchdog

FAST is the Federation Against Software Theft, a watchdog organisation for the software industry. We asked Robin Lawrence from FAST to explain what the organisation's all about. "The Federation Against Software Theft was set up in 1984 following the computer industry lobbying Parliament to get the copyright law changed to include computer software. The government agreed to changing the law on the condition that the software industry set up their own watchdog body to enforce the new rules. We are responsible for doing two main jobs: first of all marketing via advertising to the general populous about copyright and things of that sort of nature and also giving out free materials to companies to make sure they can stay legal. Secondly, on the piracy side, on behalf of their members, we can prosecute anyone found to be breaking the computer software laws." And that includes you, if you are one of the thousands of millions of people in the world who own or use – maybe unwittingly – a piece of pirated software.

So where do you stand?

You might be a bit confused about what's strictly legal and what's not. Don't feel isolated – the legal system never seems designed to be comprehended by mere mortals. Anyway, here's Robin Lawrence, the operations manager at FAST to try and clarify matters:

"The law regarding copying devices is basically that the use of any device that has been specifically designed or adapted for infringing copyrighted work would constitute a criminal and civil infringement depending on the circumstances. Under the new EC software directive people now have a right to make a back-up of their software as far as is necessary for the legal use of that software. The new directive gives a limited right to decompilation and also a limited right to back up, but it is a limited right and it is quite specific; you can only back up as far as necessary for legal use.

"For example you wouldn't need to have a back-up of cartridge-based software, but it may be necessary to have a back-up of some disc- or cassette-based software. So really it depends on how you are using the back-up devices and whether you're entitled to have a back-up in the first place.

"Anyone who copies software without the permission of the owner breaches copyright and that is a criminal offence. You can't cross format, without permission of the copyright owner. Basically it's up to the software company as to whether they object to it or not. And it is dependent on the conditions whether they would be prosecuted or not.

"Any person who infringes copyright risks up to two years in prison and a substantial fine (up to £5,000 per count) and indeed if there's any question of them copying trade marks in the process they can go to prison for up to ten years.

"Basically what FAST and the law are saying about back-ups is that if you want to back up your software, be it from tape to tape, tape to disc or disc to disc, then it's best to get the permission of the copyright holders before you do. And that means getting in contact with the software house that produces the software, or in some cases contacting the programmer. The only time when it is perfectly legal to copy and distribute copies of software is if the program is public domain. As long as you're sure the program is PD you can give a copy to whoever you want.

"If someone is concerned about the legality of their's or anyone else's software then they should contact us on our piracy hot-line ☎ 0628 660377."

Er, I hope that's all clear now.



the end piracy is a vicious circle because if publishers like us are unable to generate revenue from sales of these products then we'll end up by not publishing any more. It's ruining the market really."

"It's down to sheer greed at the end of the day"

ROGER HULLEY, MD Alternative Software

"We don't think there's any reason to do a back-up. We do a copy of the game on both sides of the tape in most instances, unless it's a compilation in which case there are different games on different sides. If the situation was one in which a person wanted to do a back-up and we knew it was going to be genuine, if they wrote to us we would probably give our permission to do so. Let's face it, 99 per cent of the back-up devices available, as we all know, are used for piracy and generally as the user out there for £3.99 can buy a cassette with the game recorded on both sides there's no point really. For every one game we sell about 19 are pirated. It's down to sheer greed at the of the day, nothing to do with price; most of our games are low in price so it's not a case of the products being to highly priced so the pirates can't use that excuse. Many of these people who are into the piracy of software, are, shall we say, dealing in other things that are highly illegal – you only have to look at half of them, to be honest, to know that's the case. All they're doing is damaging this industry, they don't care about the industry, they don't care about the machine, all they want to do is make a quick buck, and then move on to the next thing that they can rip off. If we came across anyone pirating our games we would report it directly to FAST via ELSPA. We do have the right to seize counterfeits of our products, but the chances are that we would go through the official route."



The man himself, Darren Jobling of Zeppelin.

"90 per cent of copies of our games in circulation are pirated"

DARREN JOBLING, Operations manager, Zeppelin

"All of our cassette games carried a warning not to copy or back-up our games. The only good thing that I could say concerning back-up devices is the likes of ourselves and other manufacturers unfortunately are no longer mass producing CPC games, we haven't got any CPC games in stock at the moment, we're only making up special orders. Therefore if someone who has a problem with a game they've bought legitimately contacts us we wouldn't be able to replace the game. In that case it would be a wise thing to back-up your game.

"We own the copyright to all our games and there are various legal obligations that we have to the programmers, so making the excuse that our games aren't available any more

Contacting Bonzo's scrapyard

DAVE MUGGERIDGE, Amstrad Contact (A fanzine run in conjunction with Bonzo's Scrapyard, a service devoted to cracking games code)

"I would say that people have got a right, really, to back-up software for their own use. But what I don't like is when you go to car boot sales and see people with masses and masses of 3-inch and 3.5-inch discs, all backed-up copies, and they're selling them.

"The problem, in my eyes, happens when people want a game which should be available on disc but it's not. All the budget games are never available on disc. So there should be some method where people that have got disc drives should be able to transfer their software to disc, such as the Bonzo and *Softlock* utilities. In fact I've just been given permission to re-issue *Bankraid* which will back-up some of the software which other utilities have not been able to cope with. So I do believe in backing-up programs; what I don't believe in is people who get hold of a tape-to-disc copier and go out and sell the tape, keeping the back-up for themselves. There's little enough software around as it is, so that if you're going to back-up a tape or disc and then sell the master on then you are in possession of an illegal copy of that piece of software.

"If people know they can make a back-up they tend to go and buy those games."

"I think the trouble is – the reason why software companies basically left the CPC is that – they keep coming up with all these excuses about software being too expensive to produce, but the only real reason is that they can turn to producing games on cartridge and making about 80 per cent profit on it and they can't be bothered to produce a budget game for £3 or thereabouts on a cassette simply because the money's not in it. Ocean bought things out on disc that were totally uncopyable; STS bought out utilities and games that were uncopyable too, but they don't seem to have got anywhere with it.

"I think that if people know they can make a back-up for their own use if software houses or somebody made it public that you could back them up, like we've done with the Bonzo Database (we've listed all the tapes that you can back-up), people tend to go and buy those games. 6128 owners are more likely to buy a tape knowing that they can back it up to disc.

isn't an alternative. We did a bit of research recently and we found that 90 per cent of copies of our games in circulation are pirated copies. But, actually, I was quite surprised it wasn't a lot bigger than that. We wouldn't take any action ourselves if we were to find a pirate dealing in our games, we'd simply inform the police and FAST. It's very difficult to get the proof you see. If we had the proof, if they were making money from it them we'd certainly think about a private prosecution."

"Back-ups aren't really necessary with our software."

STEVE DARRAGH, Titus

"To tell you the truth if it wasn't for piracy we'd probably still be producing for the CPC. According to some research we've done, for every one game we sell there's up to 10 illegal copies floating around. If we were to actually sell just four of those illegal copies then our profit



If you've got a pirated copy of *Prehistorik 2* then it's your fault that Titus won't do anything more for the CPC.

margin would be big enough to allow us to carry on making CPC games.

"As for back-ups, well they're really not necessary with any of our software. If a customer has a problem then they can send the faulty tape or disc back to us and we'll replace it for free."

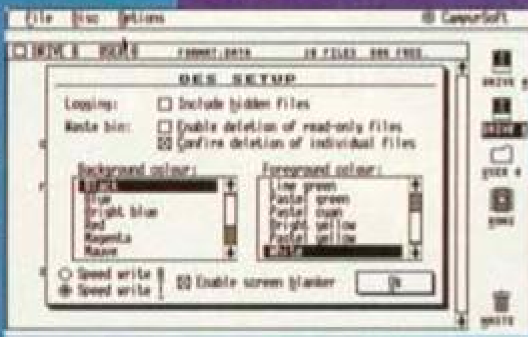
Obviously you could say that my newsletter (Amstrad Contact) encourages piracy in a way by publishing the Bonzo database. Indeed, I just got a mass of data from some hackers about games that won't go to disc via the utilities, which I'll publish individually. So we are encouraging it but we always concentrate on tape-to-disc; I was going to publish a database about which copiers would cope with which discs, but something inside told me, 'no, don't do it, that would be pushing it too far, it would kill the trade totally'.

"The trouble is with the best disc copiers, and I say copiers because that's what they are, aren't available in the UK. There's a particularly good French one and there's an illegal German one that I have come across that will copy all the backing-up utilities; it's pirating the pirating programs in effect. And that is, possibly, the final straw."

"We recommend that legitimate owners of our software make back-ups of our software."

PETER CAMPBELL, Campursoft

"We recommend that legitimate owners of our software make back-ups of our software. The problem is that in this market you never know how long you're going to be able to carry on in



If you've bought *DES* on disk Campursoft recommends you make a back-up.

business. If you haven't made a back-up of your program and something happens to the original, if the company's gone under in the meantime then you're left high and dry.

"At the moment I'm checking someone out who may be retailing something of ours that he shouldn't be but we'll see about that.

"As I said we have no problems with people making back-ups and selling our products second hand as long as they don't keep the original. If it ever came to that point where some of our programs are no longer of commercial value then we would release them into the public domain."

"Piracy is rife in France and Germany, but I don't think the situation is as bad over here."

ROB BUCKLEY, Radical

"The issue of back-up devices doesn't bother me, I don't usually put any copy protection on my stuff anyway, because people will want to make back-ups of their software, but obviously illegal copying ruins people. If it ever came to a point where I wasn't selling a particular product any more then I'd put the products out on PD. I've done that in the past with *Eve Of Shadows* for example, an adventure that was sold commercially at first, but it was then forgotten about by the buying public and so I put it into the public domain.

"The reason why companies now aren't supporting the CPC is because... I don't know the exact figures but... a large per cent of their software is pirated. If you expect people to support your machine and carry on churning out software then they should have the respect to actually either pay for it or not get it at all. But then again there is the case that people wouldn't buy it anyway.

"Certainly piracy is rife in France and Germany, but I don't think the situation is as bad over here – well that's what I've been told. But there are so many people that know other people, it's a very close-knit community, where everybody is doing it I suppose."

The verdict?

And so, in conclusion, at the end of the day, we can determine that, er, well, ah, nobody really agrees on anything, actually, and the whole area of backing-up devices remains a subject that stirs up a great deal of controversy. The main trend seems to be that the companies still actively involved in the CPC scene have a more lenient attitude towards backing up and regard it as a necessity, but many of the big, old softies regard backing-up devices as the thin end of the wedge as far as piracy is concerned.

But when the remaining stocks of old CPC programs from the big software houses have all joined The Hit Squad's in the incinerator, will you be more tempted to do a bit of cross format backing-up? Technically, remember, it's still illegal.

When *Fluff* finally comes out you'll be wise to back up the disk – Rob Buckley, the programmer, won't mind.





Techy

And now, for the first time in glorious technicolour, Amstrad Action presents a Richard Fairhurst production of Technical Forum (PG). Starring, your letters and your techy problems. Co-starring, assorted techy hints. Special guest star... er... didn't turn up.

What's up, Doc?

I'm a bit puzzled. I have acquired a fair amount of public domain software from various PD libraries. Some of the .DOC files hold far more data than the 6128 can hold. For example, a .DOC file for *Scrivener* requires 60k of available memory. My maximum, using *Protext* on disc, is about 24k.

How has 60k been saved on one file, and how can I access the last 36k?
Tom Walton, Manchester

The trick in trying to read a large file like this is not to attempt to read it all in at once. Instead, if you read it in line-by-line, the CPC only needs to reserve 2k as an area to store blocks of data from the disc. You can do this from CP/M using the TYPE command, or in BASIC with a simple program as follows:

```
10 OPENIN "SCRIVNER.DOC"
20 WHILE NOT EOF
30 LINE INPUT #9,a$
40 PRINT a$
50 WEND
60 CLOSEIN
```

If you want to send the file to the printer, change line 40 to `PRINT #8,a$`.

This is all very well, but the question remains – how do you create such files yourself? Well, it is possible to use a word-processor that can cope with a larger amount of text. *Protext* on ROM can manage around 39k, and the PD word processor *VDE* can handle up to a whopping 60k. Alternatively, you could write a text file in two (or more) parts and stick them together with a program like this:

```
10 OPENOUT "BIGFILE.DOC"
20 OPENIN "SUBFILE1.DOC": GOSUB 50: CLOSEIN
30 OPENIN "SUBFILE2.DOC": GOSUB 50: CLOSEIN
40 CLOSEOUT: END
50 WHILE NOT EOF
60 LINE INPUT #9,a$: PRINT #9,a$
70 WEND: RETURN
```

Adding more lines like 20 and 30 will let you use more than two sub-files. It only copes with ASCII files, so make sure you save your *Protext* files in program mode. **Richard**

Extreme violence

18 months ago, I bought a printer from a computer catalogue. It worked fine until I lent it to my brother who wanted it for his PC. I didn't see it for months and when I got it back (last January), it didn't work – I thought it had run out of ink, but I replaced the cartridge and it still didn't work. Then he told me he had been changing control codes or something, and it was not going to work on the CPC. Do you know what is going on?
Anonymous, Maidstone

This sounds like a case for extreme violence if ever I heard one. The best solution is to take your brother to the local rubbish dump and tip assorted garden rubbish down his shirt until he agrees either to fix your printer or to buy you a new one.

Alternatively, you should be able to reset the printer to its original settings (but that isn't as much fun). Somewhere on the printer (you don't say which model you have) will be a set of tiny switches which control various aspects of its operation; look in the manual if you can't find them. These are known as DIP switches.

Simply find out the default values from the printer's manual, and flick the switches accordingly. Now switch the printer on; if the manual mentions anything about resetting the printer to its default settings (often by holding down a button when you turn it on), do this. It should now work again. **Richard**

Roy Walker fan club

I am trying to program a game based on the TV show *Catchphrase*. I have asked the owners of the programme, *Action Time TV*, for permission and I'm awaiting their reply. If they say I can, will I need:



Er, is it don't judge a book by its cover?

1 A special art package? Could I use your excellent *Screen Designer* or will I need something more advanced, as I need to move things around the screen?
2 If I use *Screen Designer*, how do you add sound or music to the picture?
3 What is the best sound software around? I need to add music to the pictures.
4 Can you use an art package and a music utility at the same time, and if you can, how do you go about it?
5 Is my CPC 464 up to this or not?
Ivan Staines, King's Lynn

1 *Screen Designer* is an art package, not an animation utility. You can use it for drawing backgrounds, but if you want to move things around the screen, you'll need something else – check out Simon's animation special in *AA101*.
2 You load the screen into BASIC or machine code, and then CALL the routine to play music which your music package has generated.
3 We gave away *BooTracker* on the covertape a while back. Top dog is *Soundtrakker* (Sentinel

Zapped

I decided to type the simple program which goes 'beep' into *Zapp!* (AA97 covertape), but nothing happened. I was very confused as to why such a simple program didn't work. I then tried typing in Simon's *Breakout* clone that was printed in Assembly Line. I typed `org &4000` fine, but after that, when I typed `limit &4FFF`, it didn't accept it. It beeped as if I had made an error (well, *at least you got your beep – Richard*). Is there something wrong with my tape or is it your programs? Could it be my 464?
Alistair White, no address

Are you sure you haven't made a mistake entering the 'beep' program? Check your typing and reread the instructions for *Zapp*.

The limit problem is more obvious. In brief, limit is an instruction (technically, a *directive*) that tells the assembler not to put any code to memory past a specified address, so you don't end up overwriting important bits of code. However, it's not a directive that *Zapp* understands, so just miss it out. It won't cause any problems. **Richard**

Forum



I had a CPC problem, so I turned to Techy Forum.

Techy Forum helped me resume a normal life. It can help you too. Write to Techy Forum, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

Software ☎ 081 876 7032), and there are a few PD programs around, although neither *Digitracker* or *Protracker* will work on your machine, and they're pretty useless for generating game music anyway.

4 Er, isn't this question two again?

5 Without question. Are you, though? A game like this will need to be written in machine code, which is no cinch, and *Action Time* are unlikely to grant rights to someone who'll only be writing a version for a sadly out-of-fashion computer. Even big companies like Ocean have to pay thousands of pounds to licence concepts like this. Sorry. **Richard**



XL-ent

I have a few questions which I hope you can answer for me (*we're here to serve – Richard*).

1 Can I run the PCW program *Money Manager* on my CPC 6128 using CP/M Plus, and if so, how?

2 When is the brilliant Robot PD Library going to reopen? (*Creep – Richard.*)

3 In *AA82*, Jess Harpur wrote a listing for use with *OCP Advanced Art Studio* and *ROMDOS*. Is there any way this program could be modified to work with *ROMDOS XL*, because as it stands it will not work?

4 When using a single socket ROM box, what is the number for the slot? I think it's 1 – am I right?

5 Where can I get a cheap but decent photocopier, and how much will it cost?

6 Can I transfer the ROM in a single-socket ROM-box into a six-socket ROM-box? I got the single-socket ROM-box from Siren Software with ROMDOS XL included.

7 Where can I get a 5.25-inch disc drive from, and how much will it cost? Will a 5.25-inch disc drive be able to work with *ROMDOS XL*?

8 How can I make backup copies of programs like *Protext* and games like *Afterburner*, *Chase HQ*, *Gunship* and *Nigel Mansell's World Championship*?

9 Can *PowerPage 128* be used with an AMX mouse?

10 Is *PowerPage* 128 compatible with *ROMDOS XL* for the B drive?

11 And finally, I've got two printers and I was wondering if there is some kind of switch available which would plug into the printer port and which would then enable me to connect both printers simultaneously and switch between the two.

Steven Ashbolt, Ross-shire



1 Possibly. The main difference between the CPC and the PCW running CP/M Plus is that the PCW has a RAM-disc (an area of memory that pretends to be a disc drive), which the CPC doesn't. If *Money Manager* depends on the RAM-disc, you're stuck. You might also come a cropper if it uses any special features of the PCW or if it requires *Mallard BASIC*. It will probably be okay, though; phone the suppliers to check on these points (by the way, you'll also need a PCW disc-reading program; plenty are available from PD libraries).

2 It's open again now.

3 I haven't got a copy of *ROMDOS XL* to have a look, but at this very moment a grovelling letter is on its way to Simon Cobb at Siren. More info next month, hopefully...

4 It could be anything; it depends on what the designer of the ROM-box chose. Type in and RUN this listing...

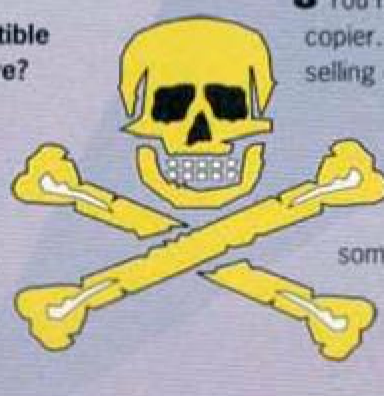
```
10 FOR n%=&AF00 TO &AF14: READ a$
20 POKE n%,VAL("&"+a$): NEXT
30 CALL &AF00,@n%: PRINT n%
40 DATA 0E,00,0C,CD,15,B9,E6,80,20,F8
50 DATA DD,6E,00,DD,66,01,71,23,36,00,C9
```

The number printed is the first ROM slot used in your system. And there you have it.

5 There's no such thing as a cheap but decent photocopier, unless you buy second-hand, in which case it'll probably break down after a month (says a slightly bitter Richard speaking from experience), or it's fallen off the back of a lorry. If you do buy one, make sure you get a maintenance contract for it.

6 Yes, no problem.

7 Not many places do them these days. Quantum or STS may be able to knock you one up specially (check out the Amscene Directory), or peruse the *AA* Reader Ads. It should work fine with *ROMDOS XL*, but to get 800k per disc, make sure that the drive is 80-track and double-sided.



8 You need to use a specialist disc copier. Wave (☎ 0229 870000) are selling off *Discology 3.3* for the very reasonable price of £5.99, or you could get the much better *Xexor* for more dosh from Sentinel or Quantum. Note that some discs are simply uncopyable, although Quantum can modify your CPC to handle almost anything (remember folks, it's illegal to copy games without the copyright holder's permission, although no-one's going to lock you up for simply backing up your originals – just make sure it stays like that.)

9 No.

10 Yes.

11 PC supplies catalogues will sell you a junction box to do exactly what you want, but it'll cost you a fair whack. All you really need are a couple of plugs and sockets, some wire, and a switch – if you don't want to make one yourself, try your local electronics shop, or one of the indie CPC hardware people. **Richard**



Blind data

1 Does the *Typechecker* program come up with the same letters for a game or program that's been written for the 464 and not the 6128, or are they different? If so, which line tells the computer what letters to show?

2 How come all of the tapes that you supply free with *AA* can be used on the 6128 and 464 Plus as well as the 464, and yet the Type-Ins are separated for use with 464s and 6128s?

3 What do the numbers and figures mean in the DATA section of any program? I would like this explained to me in detail, as I have read in my *Minidictionary of Computing* that 'data' covers a lot, like: 'data: introduces a line of data values'. I am

still none the wiser. Then I go on to read 'databank', 'database', 'database language' and so on, all of which I do not understand. Could you possibly explain it to me?
4 Where do you and your pals on *AA* get your knowledge from? Did you go to college to learn all that you know about computers?
5 Why are there so many Amstrad computers for sale in the Reader Ads? Are they all small businesses?
Nora Lees, Birmingham



1 *Typechecker* comes up with the same letters regardless of what computer it's running on (er, as long as it's a CPC). Basically, for each program line, *Typechecker* adds up all the letters (with capital A being number 65, capital B being number 66 and so on) you've typed in, converts the grand total to letters, and prints the result. At *AA* the same thing happens with the original program, but since we know there aren't any mistakes in that (because the author sent us a copy on tape or disc), we can print these correct codes in the magazine to check against your typing.
2 The commercial programs on the covertape work with all CPCs because no company in its right mind would write a program for sale which used the FILL command, for example. Since the 464 doesn't understand this, they'd be cutting out half their market, so they use their own fill routine which works on all machines.

Type-Ins authors, though, don't worry about such matters (although, budding coders out there, it'd be nice if you did). This means that sometimes they'll use the extra BASIC features of every machine since the 664, to the exclusion of 464 owners.
3 The word 'data' means 'information', and that's what DATA lines hold. Imagine you were writing a program which needed to contain the name of every capital city in the world. You could write a long succession of instructions along the line of:

```
10 a$(1)="London"
20 a$(2)="Paris"
30 a$(3)="Ouagadougou"
```

...and so on, but it would be very tedious. Instead, you type the names into DATA lines, separated by commas. You can then read them into an array using the companion command, READ, which takes the next piece of information from a DATA line and puts it in a variable. Try this:

```
10 READ a$: PRINT "First piece of DATA: ",a$
20 READ b$: PRINT "Second piece of DATA: ",b$
30 DATA Steven Spielberg,orang-utang
```

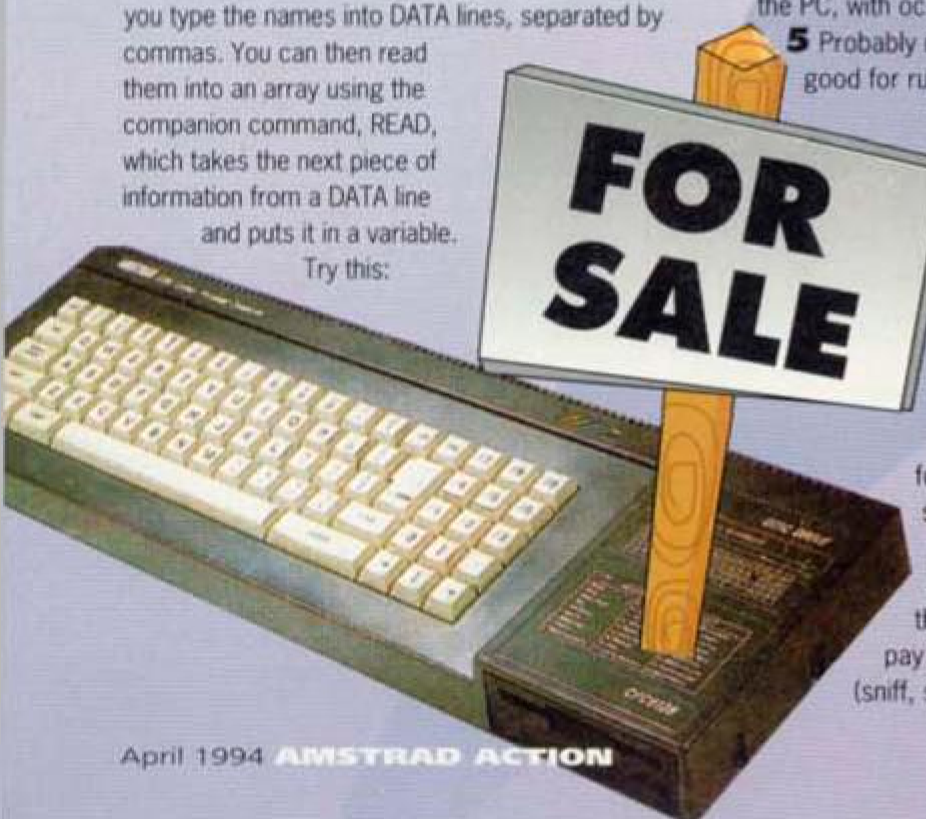
In the capital cities example, you'd use a FOR... NEXT loop to read in the data into an array, so the first piece of data would go into a$(n) where n is 1 – i.e. a$(1) – then the next one into a$(n) where n is 2, ie, a$(2), and so on. This is the most common way in which READ and DATA are used.



The one remaining question about all this is, what do programmers use it for? Well, there are plenty of uses. If you were writing a platform game, for example, you'd store the layout of each screen in DATA statements. If you were writing an adventure, you would probably use them to hold your room descriptions. Possibly the most common use, though, is in a line like this one:

```
320 DATA CD,0E,BC,21,00,80,11,00
```

When you see a line like this, containing a sequence of hexadecimal numbers, they're almost certainly machine code instructions. These are POKEd into memory and then CALLed to run the machine code routine (see the letter titled 'XL-ent'). As a machine code program can do an infinity of different things, it's impossible to say what each routine will do. However, unless the whole program's in machine code, there are two main reasons for using it – the first is for speed (machine code programs are generally much faster), and the second is for tasks that are almost impossible in BASIC; sprites and complex animations, for example.
4 No – just fiddling around with them for a long time (both Simon and I have had CPCs – and been reading *AA* – since the dawn of time, or thereabouts). The best way to learn is to read lots and lots of magazines, but unfortunately there are very few indeed these days which don't focus on a particular type or area of computing. Even so-called multi-format magazines, like *Personal Computer World*, really only focus on the PC, with occasional Macintosh coverage.
5 Probably not, in fact. A CPC is just as good for running a small business as it always has been. What it's not so good at any more is running the latest, super-accelerated, multi-million colour games. *Fluff* proves that decent games can still be written for the CPC but software houses don't give it a chance and don't release any new stuff for it. This means that, sadly, scores of previously happy CPC users are buying Amigas and consoles, and flogging their poor devoted Amstrad to pay for them. It's a tragedy (sniff, sniff). **Richard**



Top Tips

Clock this!

Yes, it's another storming *AA* exclusive. Not content with giving you a fantastic cover-mounted cassette every issue, we present a world first: a cover-mounted clock.

Okay, it's not on the cover, and you do need a CPC to be able to use it, but nevertheless, it's a remarkably handy little utility. Type in the listing, and you have a number of new commands to play with. `|SET,10,30` will set the time to 10.30 in the morning (it uses the 24-hour clock). As long as you define the variables first (eg. `h%=0: m%=0: s%=0`), `|GET,@h%,@m%,@s%` will get the time and store it in the specified variables. `|ON` turns the clock display on, and `|OFF` turns it off again – the clock keeps on running, regardless. |SECONDS,0 turns the display of seconds off: |SECONDS,1 to turn it on again. Finally, |WINDOW,n – where n is a number from 0 to 7 – lets you select which window the clock is to be displayed in.

```
10 FOR n=&A000 TO &A12F
20 READ a$: POKE n,VAL("&"+a$)
30 NEXT n: WINDOW#7,33,40,1,1
40 WINDOW 1,40,2,25: CALL &A000
50 DATA 01,19,A0,21,15,A0,CD,D1,BC,21,24,A1,01,00,01,11
60 DATA 55,A0,C3,D7,BC,00,00,00,00,2D,A0,C3,46,A0,C3,57
70 DATA A0,C3,76,A0,C3,7D,A0,C3,82,A0,C3,88,A0,53,45,D4
80 DATA 47,45,D4,57,49,4E,44,4F,D7,4F,CE,4F,46,C6,53,45
90 DATA 43,4F,4E,44,D3,00,DD,7E,02,32,1F,A1,DD,7E,00,32
100 DATA 20,A1,AF,32,21,A1,C9,DD,6E,04,DD,66,05,3A,1F,A1
110 DATA 77,DD,6E,02,DD,66,03,3A,20,A1,77,DD,6E,00,DD,66
120 DATA 01,3A,21,A1,77,C9,DD,7E,00,32,23,A1,C9,AF,32,CD
130 DATA A0,C9,3E,C9,32,CD,A0,C9,DD,7E,00,B7,28,05,AF,32
140 DATA EF,A0,C9,3E,C9,32,EF,A0,C9,3A,22,A1,3C,FE,32,20
150 DATA 28,3A,21,A1,3C,FE,3C,20,19,3A,20,A1,3C,FE,3C,20
160 DATA 0D,3A,1F,A1,3C,FE,18,20,01,AF,32,1F,A1,AF,32,20
170 DATA A1,AF,32,21,A1,CD,CD,A0,AF,32,22,A1,C9,00,3A,23
180 DATA A1,CD,B4,BB,F5,3E,1E,CD,5A,BB,3A,1F,A1,CD,06,A1
190 DATA 3E,3A,CD,5A,BB,3A,20,A1,CD,06,A1,F1,CD,B4,BB,00
200 DATA 3A,23,A1,CD,B4,BB,F5,3E,3A,CD,5A,BB,3A,21,A1,CD
210 DATA 06,A1,F1,C3,B4,BB,16,0A,CD,0D,A1,16,01,0E,00,92
220 DATA 38,03,0C,18,FA,82,F5,79,C6,30,CD,5A,BB,F1,C9,00
230 DATA 00,00,00,07,00,00,00,00,00,00,00,00,00,00,00,00
```

multiface. THE FINAL CLEARANCE!

When the **MULTIFACE** was launched in 1986, it was an outright winner. No one has ever come up with such a powerful, useful add-on. Labeled *the ESSENTIAL CPC COMPANION*, this **MULTI**purpose inter**FACE** proved to be an absolute Godsend for the Amstrad CPC users. Remember the first disk drive on the CPC 464? Suddenly the loading took seconds rather than minutes from tapes. Except that there was not much to load - very little had originally been released on disks and there was no facility to transfer programs from tapes to disks.

THE SAVIOUR

This is one area where the **MULTIFACE** saved everything - literally. The black magic box could stop anything any time and **SAVE** it to disk or tape. When the 6128 came with a built-in drive, it was left again to the **MULTIFACE** to do all the transferring - and to perform other miracles... So, in case you just came from Mars, what does a **MULTIFACE** do? First, it sits at the back of your CPC, its magic button always ready. Press it, and the **MULTIFACE** takes control!

ACTION!

Once in action, it freezes everything and it displays its own menu. Being fully menu-driven and error-trapped, you'll probably never need the full manual that comes with the MULTIFACE. Most operations are also entirely **AUTOMATIC**, so to *SAVE* a game once you stopped it, you just *name* it, insert *disk/tape*, and press a key. You can then *return* and *continue* the program. If you get beaten later on, just reload from where you saved last and play just from there again! No need to go back to the start all the time. Or even better, the **Multiface** allows you to **POKE**

INFINITE LIVES

listed in this magazine and you'll *never* loose. The MULTIFACE comes with a built-in **TOOLKIT** that lets you inspect/alter/dump the CPC RAM. It also has its own 8K RAM and 8K ROM. Many top programs were written with the aid of the TOOLKIT and the extra 8K RAM. And do you like the **screen shots** in this magazine? They are all produced using the **MULTIFACE!**

When we announced earlier that we were to pull out of the 8-bit market, the surge of interest in the **MULTIFACE** was such, that we had to make many more. And not just the MULTIFACE - we also have the one and only disassembler,

THE INSIDER

that lets you ***see*** and ***alter*** what happens any time anywhere inside a ***RUNNING*** CPC program. It comes on a **disk** and loads inside a MULTIFACE. Press the magic button and the **INSIDER** will disassemble, find text/code, dump the CPC RAM to printer, etc. Get it at **HALF-PRICE** for **£7.95**!

LAST CHANCE!

As this goes to press, we still have enough stock of both the **MULTIFACE** and **INSIDER**. This, however, is our ***final clearance*** and once these are sold, we will NOT make any more. The **MULTIFACE** is terrific value, in fact more for the *customer* than for the *manufacturer*... We will only accept orders when we can supply the goods and we give a *full guarantee*. Plus we still offer up to **£10 OFF! mail orders!**

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Basically Basic



Beginners All-purpose Symbolic Instruction Code? BASIC more like. Red-headed, five foot nine genius? Clur Hodgson more like. Put 'em together and what have you got? This...



How would you like to win millions on the pools? Now you can with Clur's Patented Pools Predictor! Well, actually, you can't. It's only a simple random number generator but it will save you the bother of deciding which boxes on the pools coupon to pick. Not only that, but it gives me a great opportunity to explain all about using arrays in your BASIC programming. Let's have a look at what we're working towards:

```
10 REM Clur's fab little pools
proggie
20 PAPER 0
30 INK 3,8
40 PEN 3
50 CLS
60 INPUT "How many matches?",NUMBER
70 INPUT "How many guesses?",G
80 IF G>NUMBER THEN PRINT "Don't be
so blmmin' stupid, you peasant.
NUMBERS LESS THAN ";NUMBER;"
ONLY.":GOTO 70
90 NUMBER=NUMBER+1
100 DIM N(G)
110 FOR Y=1 TO G
120 Z=INT(RND*NUMBER)
130 IF Z=0 THEN GOTO 120
140 FOR C=1 TO G
150 IF N(C)=Z THEN GOTO 120
160 NEXT C
170 N(Y)=Z
180 PRINT Z
190 NEXT Y
200 ERASE N
210 INPUT "Try again (y or n)?",T$
220 IF UPPER$(t$)="Y" THEN GOTO 100
230 IF UPPER$(t$)="N" THEN END
```

Not only are arrays used in this program but, carrying on from last month's graphics program, there's also a neat change from the normal CPC text and background colours in the first few lines.

Think of using colours on the Amstrad in the same way as you would ink pens on sheets of paper (yes, it's analogy time coming up). In total you have 27 colours of pen and paper to play with, but you can only use four of these colours on-screen at any one time. Imagine that you have a very tiny desk and there's only room for four ink pots and four piles of paper (all the other ink pots and reems of paper are stored in a cupboard in another room). Each of the ink pots can be filled with a different colour ink, numbered for convenience (0-26), and the colours of the piles of paper must be the same as the colours of the ink. Say, for example, number 3 ink pot has colour 21 in it; to draw in colour 21 you must fill your pen from pot 3. The BASIC command to do this is PEN 3.

Changing the colour of paper you're writing on (the background colour) is just as easy. If ink pot 1 contains colour 9 ink, then to change the background to that colour you just pick up the corresponding pile of paper. In BASIC you just use the command PAPER 1.

But what if you want to use a colour of paper or write in a colour that your original four pots don't contain? You have to go into the next room with one of the ink pots, empty it out and replace with the colour you want. The BASIC command to do this is INK (number of ink pot, number of new ink). For example, if pot 0 has colour number 2 in it and you want to change that to colour number 11 then you type INK 0,11.

Unfortunately this is where the analogy breaks down, because if you change the ink in one of the pots, then everything you have previously drawn with the ink from that pot will magically change to the new colour – shame.

Command performance

A reminder of this month's new commands:

PAPER – Represents the background colour of the CPC screen.

INK – Change the ink if you want to alter what colours are available for you to use.

PEN – Change the ink in the pen to alter the colour the text appears in.

GOTO – Go back to the line number stated after this command.

DIM A(B) – Create an array called A of size B.

ERASE A – Erase all the entries in the array A.

INT C – Rounds the number represented by the variable C to the nearest whole number.

RND – Gives a random number of value between 0 and 1.



Okay, we admit it – the link between the program and football is pretty tenuous.

Those all-important colour codes

If you're lucky enough to own a 6128 then all the colours you can use and their relevant numbers are listed on top of the disk drive. If not then you'll just have to consult this fantastic list.

0	Black	14	Pastel blue
1	Blue	15	Orange
2	Bright blue	16	Pink
3	Red	17	Pastel magenta
4	Magenta	18	Bright green
5	Mauve	19	Sea green
6	Bright red	20	Bright cyan
7	Purple	21	Lime green
8	Bright magenta	22	Pastel green
9	Green	23	Pastel cyan
10	Cyan	24	Bright yellow
11	Sky blue	25	Pastel yellow
12	Yellow	26	Bright white
13	White		

That's enough theory...

Clur's Patented Pools Program (© Hodgsoft 1994) uses lines 20, 30 and 40 to alter the standard CPC colours to pink text on a dark blue background. On start-up the ink pots are filled with dark blue, yellow, cyan and red in pots 0, 1, 2 and 3 respectively. So the command in line 20, PAPER 0, turns the background colour to dark blue. Line 30 changes the ink in pot 3 to the colour represented by the number 8 (red to bright magenta). And then the command PEN 3 orders Arnold to change the colour of the ink in the pen to the ink in pot 3, which we previously defined as magenta.

Input, output

Now you need to think about what you actually want the program to do. As it's a pools program you need to find out how many matches are included on the coupon this week (usually 58), and how many guesses the user has paid for (usually 11). That's what lines 60 and 70 do, then assigning those numbers to the variables NUMBER and G. I've covered inputting numbers and assigning them to variables before so I won't bother going over that ground again (*you'll just have to order AA101 from Back Issues on page 40 – a back-on-form Dave*).



Line 80 is what I like to call a common sense line, it looks at G (the number of guesses) then at NUMBER (the number of teams). If the value of G is higher than the value of the variable NUMBER, the program sends out a message saying that this situation is pretty stupid. Then the command GOTO 70 orders Arnold to forget about going through the lines in order like usual and to go back to line number 70 to ask for another number to be inputted for the number of guesses (line 90 is simply adding one on to the number of teams variable to make sure that the computer does include the numbers of all the teams in its calculations and doesn't miss off the last one.)

Randomise and rationalise

So all we really need to do now is to print out a list of numbers which is G long and not going above the value of NUMBER. But 1 2 3 4 5 6 7 8 ...won't really do, we need the numbers to be randomly selected from the range available to us. For this I need to introduce you to a lovely little command: RND.

Just typing PRINT RND into the computer and hitting return will instruct Arnold to print, on screen, a random number of a value between 0 and 1 (for example, 0.271940568). But you need a number between one and 58 (inclusive). All you have to do is multiply RND by the value NUMBER and the program will pick a number within the range specified.

The line 10 Print RND*10 would print out a number between 0 and 10. But that would print out a number with seven digits after the decimal point and you're after whole numbers (or integers as they're known in the trade). So change the line to 10 PRINT INT(RND*10), and you'll be rewarded with a whole number between 1 and 10.

A pools program not only needs to print out a set of numbers but it also needs all those numbers to be different from one another. So you need to store all the numbers in memory and check each number against the list in memory before it gets printed out. The way to do this is to store all the numbers in what is known as an array.

Soaking up the arrays

On line 100 of the program we arrive and a strange command, DIM N(G). This tells Arnold that we want an array set up in memory that is going to be called N and have the dimension G, in other words it will be able to hold G amount of strings in the array (G being the number of guesses as defined earlier in the program).

The next line, 110 should look vaguely familiar, it's just the start of a FOR NEXT loop as explained in last month's Basically Basic. Inside the loop are instructions for a random number between 0 and number to be assigned to the variable Z. Then the program checks whether the Z is equal to 0; if it is the program goes back to line 120 to pick another number.

On line 140 something very weird happens – there's a FOR NEXT loop inside a FOR NEXT loop, this time using a variable called C. This loop checks through the numbers in the array N, from the first to the last, to check if the variable Z is contained in the array. If it is then the program goes back to line 120 to pick another integer to check.

If the integer Z is neither equal to 0 nor contained in the array N then that number will be stored in array N (line 170) and then printed out (line 180). Then in line 190 the program loops round to line 110 to go through it all again. The loop will only stop when Arnold has printed out the amount of numbers as specified in the variable G (the number of guesses).

This is not the end

Arrays are stored in the computer's memory until you tell it to wipe that section of its memory or switch the power off. The command for wiping the section of the memory which is storing the array is ERASE. So line 200 erases the entries in the array N. If you didn't do that then if you ran the random number generator again (see line 220) it would just give you the same numbers over again.

The function of ine 210 is to check whether the user is happy with the numbers they've been given. If they answer yes (Y) then the program goes back to line 120 and Arnold prints out another set of random integers. If they answer no (N) then the program ends and you're left with a ready prompt.

Well, I think that's about it – Clur's fab Patented Pools Predictor well and truly explained. Tune in next month for more brilliant BASIC programs and more BASIC commands for you to get your head around. TTFN.



The battle of

Citizen ABC 24

Citizen ☎ 0800 525 686

The contenders for the light-weight colour 24-pin printer world title fight both look fighting fit (though one's quite a few pounds more than the other). The referee for this match is Simon Forrester.



VS

Star LC24-30

Star ☎ 0494 471111



Many years back, when Amstrad first released the CPC, they came up with a brilliant method of making sure they made huge amounts of cash; they tried to make the machine utterly incompatible with just about every other peripheral known to man, meaning that users had to buy everything from Amstrad at incredibly high prices – the discs were three-inches wide, the formats were deeply strange, the printer port was odd, and the tape ports owed more to the BBC Model B than they did to common sense.

They didn't try hard enough with the printer port, though – the standard was known as Centronics, and it was still possible to buy printers that would cope from other manufacturers. This is a good job for two reasons:

1 Amstrad's planned DMP range was rubbish.
2 They really were completely and utterly inexorably rubbish.

The Amstrad DMP printer was a rubbish little beast (did I mention that it wasn't very good?), having only nine pins (which was okay back then, but rubbish now), and using probably the worst design of ribbon imaginable which ran out after about a day. It was slow, noisy and shoddily put together, with lots of irreplaceable flimsy plastic bits that, once broken, would stop the printer from ever working again. This wasn't a printer for using; this was a printer for running away from, screaming. It was rubbish.

Anyway, we don't have to suffer them these days. In fact, we can use just about any dot matrix printer going. Two printers that have just been released are Citizen's ABC 24, and Star's LC24-30, both of which are 24-pin and capable of colour. Which one should you get?

Citizen ABC 24 Weighing in at: £180

This is a printer aimed at the home and small business user. The term Citizen used in their press thingy was SOHO, an acronym for Small Office, Home Office. That's you, that is. This was the printer that originally came in for review, and you've already been introduced to it last issue in Mary's preview. And in the opposite corner...

Star LC24-30 Weighing in at: £350

If you'd have been in the AA office when a nice, polite representative from Star Micronics tried to say the price as quickly as he could to make it sound a little bit less than it actually was, you'd have learnt a lot of new words that you definitely couldn't have repeated to your mother. I hope you read the £350 quickly enough for your own sanity. This is supposed to be their contender with the ABC. Things aren't looking good for Star so far, are they?

Look it up

So you can see at a glance how the two compare I've

Colour?

That's right, colour. Though your CPC will give a standard black and white output, a colour printout is perfectly possible, either using Epson codes (technical fing) from your own programs, or a colour dump package for printing out screens in colour, several of which are readily available from PD libraries.

Programming

Just a quick note, because this is a review, not a tutorial – if you want to use your printer from BASIC, you can use the print command as usual, but whereas you used to have PRINT"The Hairy One", you have to use PRINT#8,"The Hairy One" instead. So now you know.

the printers

concocted a rather nifty *Which?*-style comparison table showing what each has to offer. Taking a look at what it reveals, I think the result is pretty clear. It's a pity that Star, whilst aiming to compete in a similar market to the Citizen, didn't produce a printer with the same kind of performance figures; so far, the Star printer hasn't won a single category.

What about the next round, where we check out the ease of use of both machines? I get the feeling we may as well call it 'Citizen will win', but what the heck.

	CITIZEN	STAR	COMMENT
Max Speed	Draft 240cps NLQ 080cps	Draft 240cps NLQ 080cps	And so, in this first round, they start off level pegging.
Direction	Bidirectional, with logic-seeking for characters.	Bidirectional, with logic-seeking for characters.	Both heads travel in both directions is what that means.
Fonts	Draft: Courier NLQ: Sans Serif, Prestige, Roman, Courier, Script	Draft Roman Sans Serif Courier Prestige Script	And still the two contenders are head to head.
Paper Feed	Sheet or tractor feed.	Sheet or tractor feed.	One of them has got to pull away soon (I hope)
Max Resolution	As graphics, 360 dpi (one way, you pick) by 360 dpi (the other way, it seems).	Again, 360 dots per inch in either direction. Do you realise that's 2,880 dots across one piece of paper?	More importantly, can you believe I actually get paid for writing this stuff?
Buffer	8k, upgradable to 104k. The 8k alone would be perfectly adequate for just about any use, but if you wanted to print DTP pages, you'll need the upgrade.	By the time you've got it running on your CPC, you're looking at about 256 bytes. That's 32 times less, and wouldn't print diddly without holding your printer up for an ice age or so.	Finally, something different. If you plan to print text in a hurry (or even in a day), the Citizen printer wins this category, as the Star's buffer system won't be much use to your CPC.
Dimension	The whole thing is 38.5cm wide, 24.7cm deep and 16.7cm high.	This one is a chunkier 38.6cm wide, 27.5cm deep and 19.5cm high.	The Citizen is smaller. The Star is bigger. This category was bought to you by the words 'big' and 'small'.
Print Head Life	200 million dpi	100 million dpi	We've all seen the battery ads – wouldn't they be better if a bunny got shot dead by a flying red hot printer pin?
Price	£180	£350	I know, I just had to mention these prices again – £350 just appeals to my sense of humour.

Ease Of Use

The other aspect of this review is the fact that Citizen originally marketed this printer at the home user, and in particular a home user who's never seen a printer before in their life. This fact is reflected in the price, which is aimed toward someone who's never paid for a printer in their life either.

If you were a PC owner, you'd say your prayers to Citizen at night, because included in the package is a tutorial to run on your PC, taking you through every aspect of your printer in detail. You've got a CPC, though, so you won't have too much luck with the disk, but the manual follows roughly the same idea, taking you through the same kind of process. The Star manual seems to have the right idea, but they didn't exactly go overboard on the diagrams. Let's face it – they didn't exactly go on the diagrams full stop. The occasional picture of a pair of disjointed hands holding a ream of paper is so incredibly useful that I think I'll throw the manual away and struggle though by hand.

What a link. You see, it takes more than a comprehensive manual to make something easy to use. If you've used a printer before, you'll want to get straight down to it, and if this is your first time, you don't want anything to be too physically dicey, and you definitely don't want to fiddle with awkward catches and the like. The Citizen printer bears this in mind, and is laid out like a brick – a very easy to use brick. There are no major flaps, knobbly bits, ratchets, sockets or dangly bits. The whole thing just sits there, and works.

Star don't like this idea, though, and have produced something a little more complex. A lot more complex. I haven't really got space to tell you just how physically complex the Star printer is, but for now you can just take my word for it, and the word is 'complex'.

The verdict

Or the 'Citizen win' section. Now, I won't beat around the bush here – Citizen win, and Star don't. Whereas Citizen set out to produce a printer powerful enough to satisfy anybody's home office needs and easy to useease, Star have produced a slightly bigger printer powerful enough to satisfy anybody's home office needs just so long as that body is prepared to spend two days working out where to put the paper in. The Star is a more refined and substantial printer, butI don't feel that the refinements are really worth the extra £170

If you decide to buy a printer, I hope you don't have too much hassle operating it – I hope you buy the Citizen ABC 24.

Assembly



Have you ever thought about what this bit of the page is called? You know, the bit in the lettering that's smaller than the headline but bigger than the body copy and tells you things like, "this feature, which was written by Simon Forrester, is a machine code tutorial." No? Ah well, just wondering. We like writing them, you see...

Last month we took a look at writing a direct sector loader, which was a routine to read a block of data directly from the disc without hassling around with files and things. Some people might just have wanted to be able to write out a normal file to disc, though. So for anyone who doesn't like wasting their time on trivial and completely pointless exercises such as writing direct sector loaders that any disc copier could romp through, here's a brief guide to writing normal files.

First, then, you need to write out a file. For the sake of this exercise, use that standard binary file that I love so much:

```
File    CHUCKIE.BIN
Addr    &8000
Lngt    &233E
Exec    &9A97
```

And without further ado, let's get straight to the code:

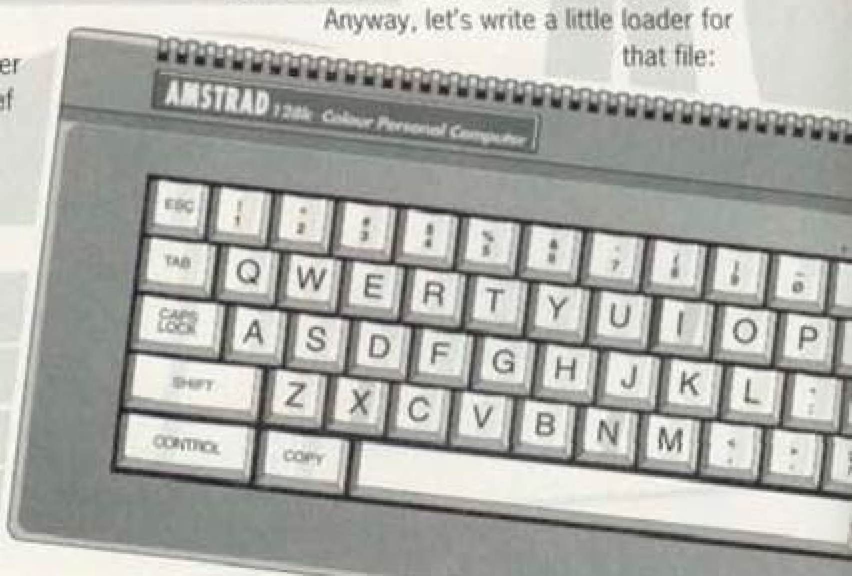
```
org &7000
limit &7fff

ld b,12
ld hl,filnam
ld de,&8000
call &bc8c
ld hl,&8000
ld de,&233e
ld bc,&9a97
ld a,&02
call &bc98
call &bc8f
ret
.filnam:db "CHUCKIE .BIN"
```

But does any of that mean anything to you? (*No – Dave.*) Probably not – knowing the firmware routines involved might help a little (I'm not going to go through it line by line, because you should have got the hang of the mechanics of machine code by now if you've been following this series, and if not, why not?), so take a look at the Hairy Firmware Guide which has all the information you need.

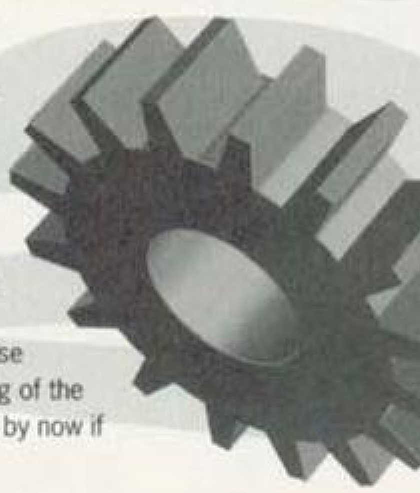
In case you're wondering (go on, admit it), the file type 2 indicates that the file is binary; it's not all that important as far as machine code is concerned, but BASIC is likely to throw a bit of a wobbly on contact with the file if you don't specify this, so it's best to include it.

Anyway, let's write a little loader for that file:




```
org &7000
limit &7fff

ld b,12
ld hl,filnam
ld de,&8000
call &bc77
ld hl,&8000
call &bc83
call &bc7a
jp &9a97
.filnam:db "CHUCKIE .BIN"
```



Do all your normal bits and take a look at the firmware calls, so we can go on to something more juicy.

Long felines

It's time for some extended CATs. The problem a lot of

The Hairy firmware guide

Unfortunately, Amstrad stopped printing the huge black book containing all the firmware calls you'd ever need some time ago. Fear not, because the Hairy Firmware Experience should see you through troubled times:

&BC77 – Cas In Open
It's basically the input version of &BC8C, so look at that one.

&BC7A – Cas In Close
It's that closing thing, with no entry conditions, corrupting flags and registers and having a carry flag that says whether you were successful or not.

&BC83 – Cas In Direct
This call reads the data into memory. The only entry condition is HL containing the address to put the data at, and you can bet the carry flag does its thing and other bits and pieces corrupt.

&BC8C – Cas Out Open
This entry sets up an output stream to be written to. On entry, B must contain the length of the filename, HL must contain the address of the filename, and DE must contain the address of a 2k buffer. On exit, there isn't much to say, apart from the fact that the carry flag indicates whether the operation was successful. Just about all main registers and flags corrupt on exit.

&BC8F – Cas Out Close
To close an output stream, use this call with no entry conditions. The carry flag indicates success. Just about all main registers and flags corrupt on exit.

&BC98 – Cas Out Direct
This sends the data out to the file previously opened. On entry, HL contains the address of the data to be saved, DE contains the data length, and BC contains the entry address (the address that'll be automatically jumped to if the code is run from BASIC), and A contains the file type. The carry flag indicates whether the operation was successful. Just about all main registers and flags corrupt on exit.

&BC9B – Cas Catalogue
After all of this extended catalogue stuff, you might like to know that this call simply performs a normal catalogue of the disc or tape with no strings attached. All you need to do is enter the routine with DE containing the address of an available 2k buffer for the CPC to store its information. On exit, the carry flag indicates success and all other registers and flags go doyley (*eh? – Dave*) .

&BC9E – Cas Write
This writes a pure chunk of data out to tape. On entry, HL must contain the start address of the code, DE must hold the length, and A must contain a synchronisation (identity) byte. On exit, just about everything corrupts.

&BCA1 – Cas Read
Reads in a chunk of data produced by Cas Write. The parameters are identical, as are the exit conditions, with the carry flag indicating success.

&BCA4 – Cas Check
Checks a chunk of data against a part of memory. Entry conditions are identical to Cas Read, and on exit the carry flag indicates the integrity of the file.

Line



people encounter with binary files is that once they're on the disc, it's very difficult to get information such as exact length or entry addresses on them. There is a way, though, as the firmware routine at &BC77 (Cas In Open) gives certain details about files when it's used. The information itself is stored in the registers on exit if the command was successful:

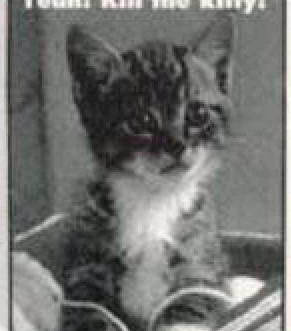
A	File type
DE	Location
BC	Length

The execution address is held at the memory address &1A bytes after HL, and so can be calculated using the following, placing the execution address in DE:

```
ld de,&001a
add hl,de
ld e,(hl)
inc hl
ld d,(hl)
```

And so we can discover the attributes of almost any file. One odd thing to remember is that binary files created by *Maxam* don't have a length as far as this routine is concerned. This is because of the way the program writes the file out, but don't worry about it.





Yeah! Kill the kitty!

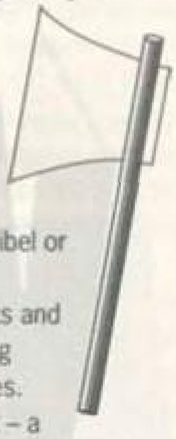
Leave my cat alone

Now we've been through extended catalogues, you might want to know how to do a standard catalogue, like the sort you'd get if you typed CAT in BASIC. The firmware call involved is listed in the Hairy Firmware Guide, but to save you the slog of shifting your eyes over to a different part of this spread:

```
ld de,buffer
call &bc9b
```

I think we can just about leave it at that.

Behead it instead



I can hear you, tape-owning readers – you're all reaching for the writing paper, planning to send a letter into the mag threatening to stop reading, sue, libel or bomb us if we don't cater for you sooner or later. Here are a few bits and pieces that should keep you ticking over, in the form of headerless files.

A headerless file is exactly that – a file without a header. In their raw form, BASIC can't read them, as they're not all nice and structured (they're just a leader tone and a mess of squeaks), but if you want to write a tape loader that doesn't mess around with proper files, here's how to do it. We'll start with saving our *Chuckie Egg* file out in headerless form:

```
org &7000
limit &7fff

ld hl,&8000
ld de,&233e
ld a,&80
call &bc9e
```

And to load it back in and run it again:

```
org &7000
limit &7fff

ld hl,&8000
ld de,&233e
ld a,&80
call &bca1
jp &9a97
```

That was easy, wasn't it? The only part you may not have understood was the figure held in the A register. It's the synchronisation byte – think of it as a file name, as the read routine will ignore every file that doesn't have the synchronisation byte of &80. Like riding a bike or watching an episode of *Twin Peaks*, it's simple once you get the hang of it.

Can you verify that?

I know – when I first started using headerless files, I thought they sounded pretty dodgy as well. There is a verify routine, however, and it's really simple to use. All you have to do is rewind the tape once you've saved the file out, keeping the original in memory, and then run the following routine:

```
org &7000
limit &7fff

ld hl,&8000
ld de,&233e
ld a,&80
call &bca4
```

After this routine, if the file was okay, the carry flag will be set. If the file is dodgy, carry is false. Either way, you'll be able to check and, if there is a problem, re-save the file.

So now you know. Doesn't the world somehow seem a better place?

Org



One minor change you'll have noticed to this month's column is that every mini-listing has a base address. These aren't meant to be concrete, it's just that judging by the letters, some people don't feel quite safe freely romping around memory. If you're using the actual example program (*Chuckie Egg*) that I am, the address given will work perfectly for you. If you're not, you might have to work out some new addresses for your routines that steer clear of existing programs.

Next Month

Dear Mr Campbell,
As publisher of the magazine *Amstrad Action*, I feel you really ought to do something about the situation regarding Simon Forrester's Assembly Line series of articles. For a full two paragraphs, he was talking about tape firmware which didn't apply to me at all.

If your writers continue to ignore large portions of their readership for what I feel to be far too great lengths of time, I'll have to think very carefully about buying your mag in future. Thanks for your valuable time.
Roger Obviouslymadeupname, Tunbridge Wells

Dear Roger
In a nice public relations sort of thing, I'll get Simon to cover something next month that'll definitely apply to you – programming toolboxes, and what they can do for you.

Thanks for taking the time to whinge to me,
Colin Publisher

Public Image

Pipeline vs Pipe Crazy

Pipeline by Ralf Brostedt
Pipe Crazy by C Moullec

GAME REVIEW



Imagine playing *Pipemania* in slow motion and you've got an idea what *Pipeline's* like.

Most games place you in the role of a muscle-bound hero, an ace racing driver or a famous movie-star. These games, however, let you live the not-quite-so-glamourous role of... a plumber!

Where have you heard that before? (*Super Mario Bros? – Dave.*) Probably in a *Pipemania* review, as both *Pipeline* and *Pipe Crazy* are *Pipemania* clones. Like in the original, you're faced with a grid that features a leaky valve. Within a few seconds the washer gives up the ghost and the valve starts gushing forth water. It's your job to connect various bits of piping to the valve to form one long pipe that'll carry the water away.

The piping comes in various different shapes and sizes, but unfortunately you can't choose your pieces. They're chosen randomly for you, so you've got to make do with whatever piping you're given. You are, however, given the chance to do some forward planning, because the next three available bits of piping are displayed for you on the left of the screen.

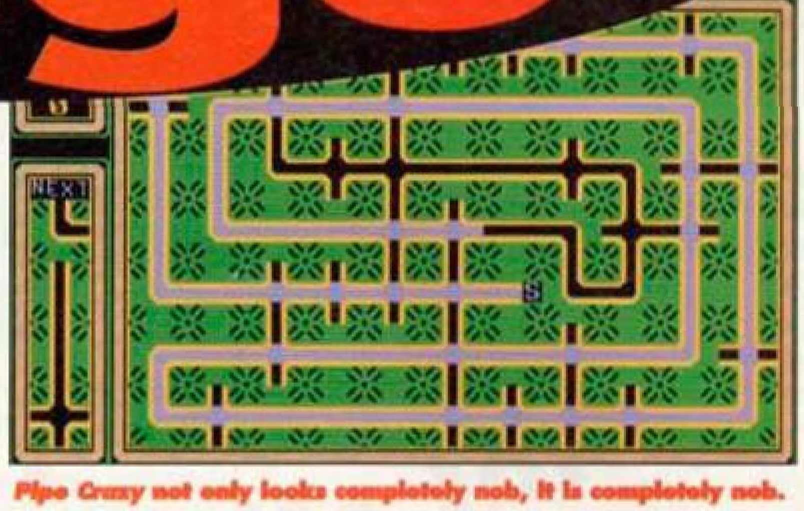
To place a section of pipe, you simply move your cursor to the position where you want the pipe and hit the fire button. To complete a level, you must construct a pipe of the required length before the water overflows out of the end.

Pipemania is one of the most enjoyable games I've ever played. Unfortunately, *neither* of its PD clones come close to matching its plumbing perfection.

Pipeline, which boasts colourful graphics and level-design faithful to the original, is ruined by a slow moving cursor. It was the frantic nature of *Pipemania* that made it so good. The inability to speedily move the cursor around the screen destroys the gameplay.

The completely opposite is the case with *Pipe Crazy*. While the cursor moves around the screen at an admirable speed, the level-design is dreadful. The difficulty of every second level is based on the fact that you can't swap around sections of the pipe once you've laid them down – an idea which doesn't work at all well. The other levels are all too easy, no matter which of three difficulty levels you use.

Neither of the games are desperately bad – they will keep you amused for a few minutes, but both could have been a whole lot better.



Pipe Crazy not only looks completely nob, it is completely nob.

Pipe Crazy 65%   Pipeline 60%



Let's face it – unclogging your U-bend would be more exciting than this game.

B-asically unfinished

Where, Plus owners are no doubt wondering, is the review of the latest version of Logon's *B-asic* that I promised you last month? Well, the version I got was fairly incomplete, so I've decided to wait until it's properly finished. Sorry!

Enter the Public Domain!

And now, especially for all new *AA* readers – everything you've ever wanted to know about PD, but have always been afraid to ask!

So what is it then? PD software is software that has been donated by its authors to the Public Domain. This means that it is free for anybody to copy, as long as nobody makes any profit out of it and it is not altered in any way. Yes, that's right, it's FREE! What's more, there's absolutely loads of it available for the CPC, covering every imaginable use for your machine – games, utilities and applications.

I bet you're thinking, "If it's free it can't be any good, can it?" Yes it can, actually! While there is inevitably a lot of rubbish to be found in the Public Domain, there is also plenty of quality software available, which is every bit as good as, if not better than, the commercial equivalent. And while commercial releases for the CPC continue to dwindle, there is always a steady stream of PD being released. To make sure that you only get the very best PD available, all you need to do is to read the reviews in this column!

Where can you get hold of it? The most common way of obtaining PD in Britain is to get it from one of the many PD libraries. These have large selections of PD which they will copy for you for a small copying charge (usually about 25p per side of disc). All the software reviewed in Public Image should be available from all the libraries listed in the Amscene Directory. Send any of them an SAE, and they'll be happy to send you a catalogue of the software they distribute, along with full details of how to order it.

The French connection

Is this the only way of obtaining PD? No. In Europe, where the PD scene is most active, there are virtually no PD libraries at all. Why is this? Well, most CPC users on the continent get hold of PD software from pen-pals, at home and abroad. The authors of the software give their productions to all their contacts, who in turn give copies to their contacts, and so on. In this way the software gets around in no time at all. If you wanted to use this method yourself, you could place a small ad in *AA* saying that you are looking for contacts to swap PD software with, and you should get a decent response. Obviously, though, you'll need to have some PD to swap in the first place, so you're still going to have to use the service offered by the PD libraries.

It is from contacts abroad that the Public Domain libraries get most of their software. The

GAME REVIEW
Death's Ticket

By Royer Sebastien

Death's Ticket is a sideways-scrolling shoot-'em-up of the *R-Type* variety. The problem with that comparison is that the makers of *R-Type* will probably sue for defamation of character. *Death's Ticket* looks interesting enough when you first load it up, but you soon realise that there's little to it, and it's actually quite dull.

There are a number of things which work against this game. First, there are only three types of enemies, two of which just hang in the air. The other one flies at you, but it only moves horizontally, so it might as well just hang like the others for all the difference that startling innovation makes.



Gosh, this looks startlingly original.

All the enemies can be dodged with ease because the game moves at a snail's pace. You can, if you want, shoot them, but there's little fun in it, and anyway, you'll find that you run out of bullets in no time at all.

Although the screenshots may look decent enough, don't be fooled – while the graphics are colourful, the gameplay could hardly be less interesting.

40%



I wonder what's on the telly?

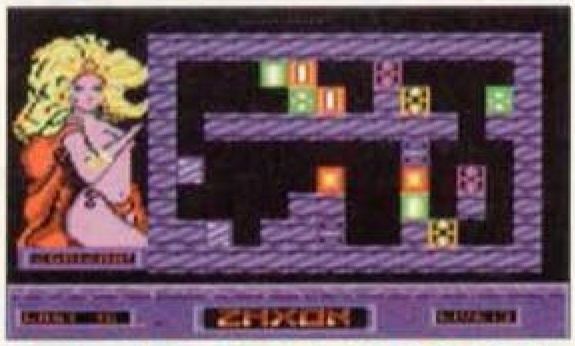


It never really got started.





Oh come on, be serious... is that woman supposed to entice you into buying the game? Sad really, isn't it. What next? Topless blondes in *Fun School*?



Ever heard that 'load of old blocks' line? Right, I won't use it again, then.

GAME REVIEW
Zaxon

By Laurent Vittecoq

For any of you whose intellectual appetites still haven't been satisfied, or any *Puzznic* fans craving for a bit more action, here comes *Zaxon*, yet another PD puzzler in the *Puzznic* mould.

If you've ever played any *Puzznic* clone, it won't take you long to get to grips with this one. As usual, you're faced with a screen full of patterned blocks. You have to move the blocks around to position matching blocks next to each other, at which point they vanish. When you've eliminated all the blocks, you go on to the next level.

What makes *Zaxon* different is that when you move the blocks, they slide along as if they're on ice, only coming to a halt when they hit a wall or another block, or when they fall off the end of a platform. The other major difference is that they won't disappear unless one crashes into another from the side, so unlike other *Puzznic* clones, you can't get away with landing them on top of each other.

As regards presentation, the graphics feature a strange choice of colours, and there's no music, no instructions and no level designer. The cursor is also slow to move and respond. However, owing to the nature of the game, these small deficiencies fail to impinge on what is most important – gameplay, which is available in abundance in this game owing to the clever design of the levels.

Zaxon may not be as good as *Puzznix*, but it's not all that bad either. For *Puzznix* fans looking for a new challenge, it's worth checking out.

65%

Next Month...

As well as another collection of PD paraphernalia, next month's pulsating Public Image will feature an in-depth interview with Fraggle of Moving Pixels, whom you'll know for being responsible for the likes of *Jumpmania*, *Puzznix*, *Crazy Snake* and many more. So what's he up to at the moment? You'll just have to wait until next month to find out!

small fee you pay them is really to cover the costs they incur in obtaining software.

Share and share alike

Is shareware the same as PD? Yes and no. Shareware, like PD, can be freely distributed and is available from PD libraries. The difference is that if you like the software and make use of it, then you should pay a small shareware fee to the author of the software. If everyone has the decency to pay the tiny fee requested, then the author is motivated to continue producing software for the CPC, and so we all benefit.

That should be all you need to know about the Public Domain. However, if you've any further questions, just put pen to paper and write to me at the usual *AA* address, and I'll be happy to supply the answer.

SERIOUS REVIEW
Diskrepair Anonymous

Anyone with a disc-drive knows the problem – your disc keeps giving you read errors, even after re-formatting.

Often only a part of the disc is corrupt, which is really irritating, because this is always the part that the computer tries to save on to. Damn and blast, eh?



Diskrepair gets around this problem, by identifying the part of the disc that is corrupted and copying a dummy file on to it. The dummy file is hidden away in another user area, so for all intents and purposes, what you're left with is a perfect disc, albeit with a little less storage capacity than you had before.

Using *Diskrepair* is simplicity itself; all you've got to do is move the cursor over an option on the menu screen and press fire. However, for some strange reason that I can't quite understand, control is by joystick only.

The only other thing I can say against *Diskrepair* is that it's nothing new – the excellent *Disc'o'Magic* by Joker of Bengl also includes a repair facility, plus loads of other utilities. However, if you don't want to pay *Disc'o'Magic's* small shareware fee, then you should find *Diskrepair* very useful indeed.

75%

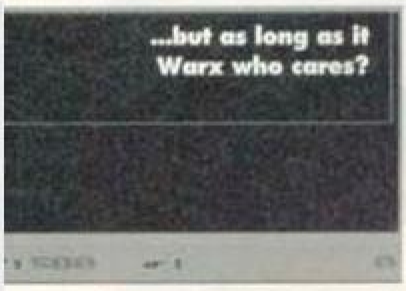
Type-ins

Simon really does get the easy life – he doesn't have to type any of these programs in himself, whereas you do. Ha! (*But it's worth the effort, honest guv – says the diplomacy ed.*)

Warx



Personally I really hate this gross colour scheme...



...but as long as it Warx who cares?

This game, from John Strangeway of Kelso, is what you'd end up with if you got hold of a copy of *Tron Cycles*, took away the steering, but gave one of the players the ability to suddenly warp to the other side of the arena. You play the part of the blue line on the right hand side of the screen, and at any point you want, you can hit the space bar, to make your line scream over to the left in an attempt to hit the first cell of the white line.

If you succeed in hitting the very first pixel of that line, you'll score a point. If the line has already passed by the time you get to it, you'll die. If, however, you fire too early, you'll simply make the white line bounce off your blue line, and it'll gradually make its way over to your side of the screen. When it gets there, you'll die.

Okay, so this probably isn't the ultimate in home video entertainment, but it's here for a very special reason – it contains quite a few little programming points that it'd do you a hell of a lot of good to take some notice of. Type it in, then.

```
DAHC 10·REM·Warx
MAEA 20·REM·Copyright·1993·By·John·Strangeway
BAHG 30·REM
BAJF 40·h=0
EACH 50·SYMBOL·AFTER·32
BALP 60·MODE·0
JAJD 70·SYMBOL·62,0,&X10011001,&X1100110,0,0,
     0,0,0
GAGG 80·INK·0,3:BORDER·3:PAPER·0
FAHO 90·INK·1,15:INK·2,2:INK·5,0
GACF 100·INK·3,26:INK·6,11:INK·8,8
FAID 110·INK·15,11,10:INK·7,13
FAAH 120·INK·14,21,8:INK·13,5,6
EADF 130·INK·9,9:INK·10,6
CAAI 140·INK·4,18
IAMJ 150·WINDOW#2,2,19,3,20:PAPER#2,5:CLS#2
IAMO 160·WINDOW#1,2,19,22,24:PAPER·#1,1:CLS#1
IACN 170·WINDOW#3,2,19,21,21:PAPER#3,4:CLS#3
LADM 180·PLOT·30,17,1:DRAW·30,370:DRAW·608,37
     0:DRAW·608,17
LAOM 190·PLOT·27,17,1:DRAW·27,374:DRAW·612,37
     4:DRAW·612,17
GAKI 200·PLOT·27,373,1:DRAW·612,373
GAFJ 210·PLOT·27,369,1:DRAW·612,369
JABP 220·LOCATE·#2,8,2:PEN·#2,11:PRINT#2,"War
     x"
JAOB 230·LOCATE·#2,8,3:PEN·#2,7:PRINT#2,"))))
     "
IAOO 240·LOCATE#2,9,4:PEN·#2,10:PRINT#2,"By"
JADM 250·LOCATE#2,8,5:PEN·#2,10:PRINT#2,"John
     "
MAIF 260·LOCATE#2,5,6:PEN·#2,10:PRINT#2,"Stra
     ngeway"
MACO 270·LOCATE#2,3,7:PEN·#2,10:PRINT#2,"Copy
     right·1993"
DBPA 280·LOCATE·#2,3,12:PEN·#2,9:PRINT#2,"Top
     :":LOCATE·#2,8,12:PRINT#2,USING"########
     #";h
MADL 290·LOCATE·#1,1,2:PEN·#1,13:PRINT#1,"··S
     PACE·to·Play"
DADC 300·k$=INKEY$
EAIJ 310·IF·k$="·"·THEN·330
CABK 320·GOTO·300
GAED 330·REM·*·*·*·*·*·Play·*·*·*·*·*
BANO 340·CLS#1
BAPO 350·CLS#2
FAFN 360·comp=40:plar=598
GACH 370·bonus=500:score=0
AAFP 380·:
GBCK 390·LOCATE·#1,1,2:PEN·#1,2:PRINT#1,CHR$(
     253)+":":PEN·#1,8:LOCATE·#1,3,2:PRINT·#1
     ,USING·"###";bonus
HBKH 400·LOCATE·#1,8,2:PEN·#1,2:PRINT#1,CHR$(
     185)+":":PEN·#1,8:LOCATE·#1,10,2:PRINT#1
     ,USING·"#########";score
DAMM 410·CLEAR·INPUT
HAPJ 420·FOR·dline=80·TO·366·STEP·3
MAKA 430·PLOT·comp,dline,3:PLOT·plar,447-dlin
     e,6
DAIC 440·k$=INKEY$
EADK 450·IF·k$="·"·THEN·480
EAOM 460·SOUND·1,100*i,1,10
EAGC 470·NEXT·dline
EAEN 480·REM·*·*·Space·*·*
FAKP 490·plary=447-dline
MAEA 500·PLOT·plar,plary,6:DRAW·comp,plary
IAND 510·IF·dline=plary+0·THEN·580
IAPD 520·IF·dline=plary+1·THEN·580
IACE 530·IF·dline=plary-1·THEN·580
HAEO 540·IF·dline>plary·THEN·830
HAPN 550·IF·dline<plary·THEN·700
BACJ 560·END
AAGP 570·:
EAOA 580·REM·*·*·Hit·*·*
HAFI 590·score=score+bonus
FAOC 600·FOR·loop=1·TO·15
GAGC 610·SOUND·1,100*loop,6,15
OADD 620·PLOT·comp-10,dline+10,15:DRAW·comp+1
     0,dline-10
OAED 630·PLOT·comp-10,dline-10,15:DRAW·comp+1
     0,dline+10
DADN 640·NEXT·loop
BACP 650·CLS#2
LAGM 660·PLOT·30,17,1:DRAW·30,370:DRAW·608,37
     0:DRAW·608,17
DANA 670·comp=40
DAHL 680·bonus=500
CADL 690·GOTO·380
FACN 700·REM·*·*·Top·Miss·*·*
JAFC 710·FOR·c=dline·TO·plary·STEP·3
EAFL 720·PLOT·comp,c,3
EAOJ 730·SOUND·1,10*i,1,10
CANH 740·NEXT·c
EAGO 750·comp=comp+40
EABL 760·DRAW·comp,80,7
GADA 770·IF·comp>560·THEN·960
IANM 780·IF·bonus=500·THEN·bonus=210
FAJN 790·bonus=bonus-10
MAHJ 800·PLOT·comp-40,plary,5:DRAW·plar,plary
IANL 810·PLOT·plar,365,5:DRAW·plar,80
CAOK 820·GOTO·380
EADI 830·REM·*·*·Miss·*·*
HAPJ 840·FOR·c=dline·TO·365·STEP·3
EAJL 850·PLOT·comp,c,3
EACK 860·SOUND·1,10*i,1,10
CABI 870·NEXT·c
FALF 880·SOUND·1,0,100,12,1,,31
KAJO 890·PLOT·comp-10,c+10,14:DRAW·comp+10,c-
     10
KABO 900·PLOT·comp-10,c-10,14:DRAW·comp+10,c+
     10
GAKC 910·FOR·w=0·TO·200:NEXT·w
GACJ 920·PLOT·20,377,0:DRAW·620,377
```

Lines 80-140

Ooh – reading this set of lines, I can't help feeling it might have been easier as follows (I haven't included all the ink values as that'd just be a waste of space):

```
FOR p=0 TO 3
READ i
INK p,i
NEXT p
```

And later on in the listing to have:

```
DATA 0,26,13,6
```

This is an all-purpose routine that could be inserted into any program, letting the programmer change the ink values by simply altering the DATA statement.

When we get down to it, the same type of principle could have been used to save time and effort with the window set-up commands in lines 150 to 170.

Line 390

Here's something you might like to try. When John wants to display the score, he makes sure there are a certain number of digits in the number, whether they're unused zeros or not. This is achieved with the USING command, that he can give a format for the number to use. So if you were to use the command:

```
PRINT USING "##.##";3.4
```

You would see:

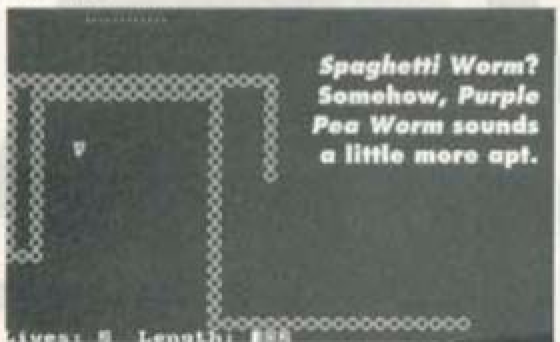
```
 3.40
```

Note the space before the number, as that was left behind because there was no digit to fill that column. If the number was 53.4, the five would appear in the far left column, and the space would be lost.

For a detailed list of the various control characters (other than #) available to the command, take a look at your manual.

```
CAFJ 930·PLOT·20,378,0:DRAW·620,378
IAMF 940·IF·h(score·THEN·h=score
CAMK 950·GOTO·150
FAME 960·REM·*·*·Finish·*·*
FALF 970·SOUND·1,0,100,12,1,,31
BAJM 980·c=80
KAKO 990·PLOT·comp-10,c+10,14:DRAW·comp+10,c-
     10
LAJA 1000·PLOT·comp-10,c-10,14:DRAW·comp+10,c
     +10
GACF 1010·FOR·w=0·TO·200:NEXT·w
IACI 1020·IF·h(score·THEN·h=score
CADM 1030·GOTO·150
```

Spaghetti Worm



Spaghetti Worm? Somehow, Purple Pea Worm sounds a little more apt.



The bolognese sauce looks a little off as well.

Don't adjust your page – this game is actually called *Spaghetti Worm*, a title which is explained in the listing. It's basically a standard worm program-thing, the instructions for which can be found on the title screen. All you have to do is collect the numbers to make your snake grow, with the aim of building a snake that's over one hundred segments long. In a total disregard for Jonathan Wilson's wishes, though, I've brutally renumbered this program (because I'm funny like that).

```
AAIK 10·'
HAMD 20·'·Spaghetti·Worm·V1.0
IAEG 30·'·(c)·Jonathan·Wilson·1994
AALK 40·'
LAAK 50·'·(Originally·called·"Spaghetti"
KAHJ 60·'·Worm·because·of·the·type·of
LADM 70·'·programming·"technique"·used).
AAPK 80·'
LAIP 90·'·If·you're·lazy·you·can·skip·out
LAEH 100·'·the·title·screen·and·the·REMs.
JAFJ 110·'·But·don't·alter·the·code!
AAKM 120·'
DAPH 130·'·(BML·--·DTS)
AAMN 140·'
AANN 150·'
KALA 160·'·"It's·Symbolic·of·Course..."
AAPM 170·'
EAGK 180·SYMBOL·AFTER·32
KAMF 190·SYMBOL·ASC("1"),126,122,122,122,122,
     122,122,126
JADL 200·SYMBOL·ASC("2"),126,66,122,122,66,94
     ,66,126
JAMN 210·SYMBOL·ASC("3"),126,66,122,66,122,12
     2,66,126
JAEM 220·SYMBOL·ASC("4"),126,94,94,86,66,118,
     118,126
JAJL 230·SYMBOL·ASC("5"),126,66,94,66,122,122
     ,66,126
JAIG 240·SYMBOL·ASC("6"),126,94,94,94,66,90,6
     6,126
KAID 250·SYMBOL·ASC("7"),126,66,122,114,122,1
     22,122,126
JADG 260·SYMBOL·ASC("8"),126,66,90,66,90,90,6
     6,126
JAGO 270·SYMBOL·ASC("9"),126,66,90,66,122,122
     ,122,126
JAKF 280·SYMBOL·ASC("0"),126,66,90,90,90,90,6
     6,126
IAAK 290·SYMBOL·ASC("_"),0,60,60,60,60,60,60,
     0
JAJF 300·SYMBOL·ASC("?"),126,66,122,34,46,56,
     40,56
JADB 310·SYMBOL·ASC("["),56,68,130,130,130,68
     ,56
IADK 320·SYMBOL·ASC("]"),0,56,124,124,124,56,
     0
IAJO 330·SYMBOL·ASC(")"),36,36,36,36,36,36,36
     ,36
HAJF 340·SYMBOL·ASC("("),0,24,24,0,0,24,24,0
HAPP 350·SYMBOL·ASC("-"),0,0,255,0,0,255,0,0
HAMO 360·SYMBOL·ASC(","),0,0,0,102,102,0,0,0
IAGH 370·SYMBOL·ASC("+"),36,36,228,4,4,252,0,
     0
IABB 380·SYMBOL·ASC("*"),0,24,24,96,96,0,0,0
IACH 390·SYMBOL·ASC("x"),0,0,252,4,4,228,36,3
     6
IAEA 400·SYMBOL·ASC("$"),0,0,0,96,96,24,24,0
IAHH 410·SYMBOL·ASC("/"),0,0,63,32,32,39,36,3
     6
HAOJ 420·SYMBOL·ASC("."),0,0,0,6,6,24,24,0
IABH 430·SYMBOL·ASC("'"),36,36,39,32,32,63,0,
     0
HAIJ 440·SYMBOL·ASC("&"),0,24,24,6,6,0,0,0
AAAO 450·'
IAIE 460·'·"Constant"·Variables
AACO 470·'
FAOP 480·DEFINT·a-b,d-s,u-z
EAOG 490·DIM·a(120),b(120)
LAOG 500·no$=CHR$(15)+CHR$(2)+"_"+CHR$(8)+CHR
     $(15)+CHR$(1)
MAJH 510·tpon$=CHR$(22)+CHR$(1):·tpoff$=CHR$(
     22)+CHR$(0)
CBLP 520·lf$="A":·rt$="S":·up$="K":·dn$="M":·
     spd$="SLOW"·'either·FAST·or·SLOW
ABJP 530·slowh$="["+CHR$(8)+CHR$(15)+CHR$(2)+
     "]"+CHR$(15)+CHR$(1):·fasth$="["
PAPJ 540·slowt$=CHR$(15)+CHR$(0)+CHR$(143)+CH
     R$(15)+CHR$(1):·fastt$="·"
PAPA 550·IF·spd$="SLOW"·THEN·head$=slowh$:·ta
     il$=slowt$
OALM 560·IF·spd$="FAST"·THEN·head$=fasth$:·ta
     il$=fastt$
EBJI 570·IF·Adams·AND·Hume·=·NOT·Tossers·THEN
     ·The·Pope·is·a·Protestant
FAJO 580·ENT·-1,·4,-20,0.5,·4,20,0.5
CAHA 590·sh=1
AANN 600·'
```

SafeSoft's Disc Archiver

Odder and odder, thought Alice. It turns out that some people are having trouble using this listing from issue 101, because of odd things like buffer space taken by *TypeChecker*. If you run the program without *TypeChecker* in memory everything will be fine, but just in case, you can replace the first lines of the original listing with:

```
GAJK 10·MEMORY·&7FFF:addr=&8000
CAEE 20·READ·b$
KAAM 30·IF·b$="**"THEN·SAVE·"sda.bin",b,&8000
     ,&BF0
FAJO 40·POKE·addr,VAL("&"+b$)
EAEF 50·addr=addr+1
CABE 60·GOTO·20
```

You don't have to re-type all the data statements, just the first six lines (phew). This will then save out a binary file to disc. To run this, you can use the following program (you can't just run the file that was saved out):

```
DAFK 10·MEMORY·&3FFF
FALL 20·LOAD·"sda.bin",&4000
CAJK 30·CALL·&4000
```

Typing listings

If you've never typed in a listing from *AA* before, then reading this following blurb is a REALLY GOOD IDEA.

- Basically, all you need to do is type in exactly what we print EXCEPT the first four letters in each line.
- The first four letters are a code which work in conjunction with our unique and utterly excellent *TypeChecker* program below.
- Only press RETURN when you get to the end of a command line. If a command line goes on to two lines do not press RETURN at the break in the line. Your lines on screen should break in exactly the same place as they do in the mag.

TypeChecker

This is a program that enables you to check whether you have typed *AA* listings in correctly. Type it in, then SAVE it for future use. So, when you want to type in an *AA* listing, and you want to double check that you got it right:

- Load up *TypeChecker*.
- Type NEW.
- Type in the listing of your choice.
- When you've finished type LIST.
- At the end of every line a highlighted code will appear. It should correspond with the code printed in front of the same line in *AA*. If it doesn't you have typed in that line incorrectly.

```
PAML 10·'·TypeChecker·V1.0·-·By·Simon·Forrest
     er·-·Dec·1992
MAOJ 20·'·For·Amstrad·Action·-·Public·Domain
DANK 30·MEMORY·&9FFF
CAJK 40·csum=0
GAME 50·FOR·addr=&A000·TO·&A05B
DAKJ 60·READ·byte$
GAJB 70·byte=VAL("&"+byte$)
FACF 80·POKE·addr,byte
GAFB 90·csum=csum+byte
DALK 100·NEXT·addr
OACI 110·IF·csum()&2ADD·THEN·PRINT·"Checksum·
     Error":END
LAHE 115·POKE·&A001,PEEK·(&BB5B):POKE·&A002,P
     EEK·(&BB5C)
KAHI 120·POKE·&BB5A,&C3:POKE·&BB5B,&3:POKE·&B
     B5C,&A0
MACN 130·PRINT·"TypeChecker·V1.0·Installed":E
     ND
MABC 140·DATA·CF,FE,93,FE,0A,CA,00,A0,F5,C5,D
     5,E5,FE,0D,CA,22
LACJ 150·DATA·A0,5F,16,00,2A,5A,A0,19,22,5A,A
     0,E1,D1,C1,F1,C3
LAFJ 160·DATA·00,A0,3E,20,CD,00,A0,3E,18,CD,0
     0,A0,2A,5A,A0,7C
LADI 170·DATA·CD,45,A0,7D,CD,45,A0,3E,18,CD,0
     0,A0,21,00,00,22
LACN 180·DATA·5A,A0,C3,1B,A0,F5,E6,0F,C6,41,C
     D,00,A0,F1,E6,F0
KAJC 190·DATA·1F,1F,1F,1F,C6,41,CD,00,A0,C9,0
     0,00,END
```

Turning *TypeChecker* off (it is automatically initialised when you RUN the program above) and back on again is quite simple:

```
POKE &BB5B,0    To turn it off
POKE &BB5B,3    To turn it back on again
```

TypeChecker was an *Amstrad Action* presentation brought to you in association with Hairy Happening Productions Ltd.

Elite

It's that covertape that's plagued my life since it was sellotaped® to the front of the hundredth issue of *AA*. Normal 6128 owners (not Plus owners) who are having problems getting the tape to work might find this listing useful. All you have to do is type it in, and run it with your *Elite* tape in the drive:

```
CAAM 10·LOAD·"elite.bin",&BE80
DAHE 20·POKE·&BE94,0
DAJE 30·POKE·&BE95,0
DALE 40·POKE·&BE96,0
CAGN 50·CALL·&BE80
```

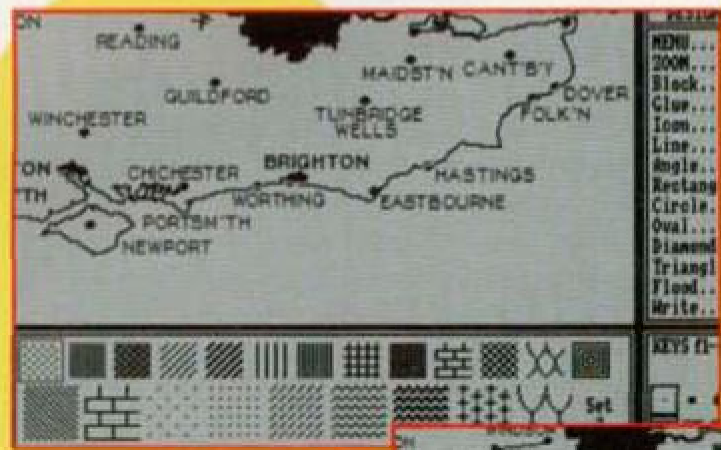
```
OAOI 610·'·Install·464·COPYCHR$·(by·Stuart·Ga
     scoigne)
AAPN 620·'
JAFA 630·DATA·cd,60,bb,eb,23,5e,23,56,12,c9
DAHJ 640·RESTORE·630
EACL 650·MEMORY·HIMEM-10
FANL 660·copychr=HIMEM+1
KALA 670·FOR·cp=copychr·TO·copychr+9
DABB 680··READ·cp$
FANO 690··POKE·cp,VAL("&"+cp$)
CAJO 700·NEXT·cp
AAPN 710·'
FACK 720·'·Title·screen
AABO 730·'
JAOJ 740·DATA·"00000100000100011100011100011
     00011",291
JAMJ 750·DATA·"00000100000100100010010001001O
     10101",228
JAIJ 760·DATA·"00000100100100100010010001001O
     01001",205
JAMJ 770·DATA·"00000100100100100010011100010
     01001",251
JAOJ 780·DATA·"00000101010100100010010001001O
     00001",182
JAIK 790·DATA·"00000110001100011100010001001O
     00001",199
DAHJ 800·RESTORE·740
GAPH 810·MODE·1:·BORDER·0:·INK·0,0
GAOB 820·INK·1,0:·INK·2,0:·INK·3,0
GAED 830·PRINT:·PRINT·tpon$
HALD 840·FOR·wl=2570·TO·2620·STEP·10
HAMP 850··wlsum=0:·READ·wl$,wlck
EAIN 860··FOR·wc=1·TO·35
FADP 870···wc$=MID$(wl$,wc,1)
MAML 880···IF·wc$="1"·THEN·PRINT·slowh$;·ELSE
     ·PRINT·"·";
JAPA 890···wlsum=wlsum+VAL(wc$)*wc
DACB 900··NEXT·wc
CANG 910··PRINT
OABB 920··IF·wlsum<>wlck·THEN·PRINT·"Check·li
     ne"wl;
CAOP 930·NEXT·wl
KAHN 940·PEN·1:·LOCATE·12,1:·PRINT·"S·P·A·G·H
     ·E·T·T·I"
KAMB 950·LOCATE·15,10:·PRINT·"Version··One"
MAOH 960·LOCATE·12,12:·PRINT·"By·Jonathan·Wil
     son"
EBNE 970·PEN·3:·LOCATE·2,14:·PRINT·"Eat·the·n
     umbers·to·get·tail·length·100"
DAOF 980·LOCATE·2,16
EBMM 990·PRINT·"To·change·Keys·from·";lf$;"·"
     ;rt$;"·";up$;"·";dn$;"·and·change"
ABDM 1000·LOCATE·5,17:·PRINT·"Speed·from·";sp
     d$;"·alter·line·2370"
IANI 1010·PEN·2:·LOCATE·19,25:·PRINT·"BML!"
KAFM 1020·SPEED·INK·2,2:·INK·1,26:·INK·2,15,0
     :·INK·3,25
BBBP 1030·FOR·o=100·TO·1000·STEP·5:·SOUND·1,o
     ,1,10,,,20:·SOUND·2,1000-o,1,15:·NEXT·o
NAMJ 1040·PEN·1:·LOCATE·9,20:·PRINT·"PRESS·A·
     KEY·TO·CONTINUE"
FAIN 1050·CALL·&BB03:·CALL·&BB18
BAOA 1060·'
EAPE 1070·'·WINDOWs·#3.1
BAAB 1080·'
GAJP 1090·MODE·1:·WINDOW#1,1,40,25,25
GAPP 1100·BORDER·3:·INK·0,3:·INK·1,26
JAHE 1110·o=RND*16:·INK·2,o:·IF·o=3·THEN·1110
JAKE 1120·o=RND*16:·INK·3,o:·IF·o=3·THEN·1120
FAPC 1130·PAPER·0:·PAPER#1,0
EAIA 1140·PEN·1:·PEN#1,1
DAJF 1150·CLS:·CLS#1
BAPA 1160·'
EAAC 1170·'·1000·Words
BABB 1180·'
EAKM 1190·'·----·Sheet·1·---
FAJJ 1200·IF·sh=1·THEN·pr=0
EAEM 1210·'·----·Sheet·2·---
HANN 1220·DATA·11,5,30,-,·1,10,10,-,·21,10,20
     ,-
HAFO 1230·DATA·1,15,20,-,·31,15,10,-,·1,20,30
     ,-
JAHA 1240·IF·sh=2·THEN·RESTORE·1220:·pr=6
EAJM 1250·'·----·Sheet·3·---
IAGM 1260·DATA·4,4,1,/,·5,4,32,-,·37,4,1,%,·4
     ,5,15,)
IAPK 1270·DATA·8,7,1,/,·9,7,24,-,·33,7,1,%,·8
     ,8,9,)
JAJN 1280·DATA·12,10,1,/,·13,10,16,-,·29,10,1
     ,%,·12,11,3,)
JAEP 1290·DATA·12,16,1,',·13,16,16,-,·29,13,3
     ,),·29,16,1,+
JAHJ 1300·DATA·8,19,1,',·9,19,24,-,·33,10,9,)
     ,·33,19,1,+
JAII 1310·DATA·4,22,1,',·5,22,32,-,·37,7,15,)
     ,·37,22,1,+
JALD 1320·IF·sh=3·THEN·RESTORE·1260:·pr=24
EAJM 1330·'·----·Sheet·4·---
HAFJ 1340·DATA·8,7,18,),·16,1,6,),·16,13,12,)
HABM 1350·DATA·24,1,12,),·24,19,6,),·32,1,18,
     )
JAPA 1360·IF·sh=4·THEN·RESTORE·1340:·pr=6
EAOM 1370·'·----·Sheet·5·---
JALC 1380·DATA·16,3,1,+,·19,6,1,+,·22,9,1,+,·
     25,12,1,+
JAEK 1390·DATA·25,12,1,%,·22,15,1,%,·19,18,1,
     %,·16,21,1,%
JAIC 1400·DATA·1,3,15,-,·1,6,18,-,·1,9,21,-,·
     1,12,24,-
HACM 1410·DATA·1,15,21,-,·1,18,18,-,·1,21,15,
     -
JALF 1420·DATA·16,1,2,),·16,22,3,),·19,1,5,),
     ·19,19,6,)
JADL 1430·DATA·22,1,8,),·22,16,9,),·25,1,11,)
     ,·25,13,12,)
JAIE 1440·DATA·39,3,2,-,·39,6,2,-,·39,9,2,-,·
     39,12,2,-
HALN 1450·DATA·39,15,2,-,·39,18,2,-,·39,21,2,
     -
JACE 1460·IF·sh=5·THEN·RESTORE·1380:·pr=30
GAPI 1470·'·----·Draw·Screen·---
EAKL 1480·PRINT·tpon$;
FAKA 1490·FOR·pr=1·TO·pr
GAJA 1500··READ·px,py,pn,p$
EAMN 1510··LOCATE·px,py
FAMB 1520··FOR·pn=1·TO·pn
GAPL 1530···PEN·3:·PRINT·p$CHR$(8);
IAMA 1540···PEN·1:·PRINT·CHR$(ASC(p$)-1);
JAMK 1550···IF·p$=")"·THEN·PRINT·CHR$(8)CHR$(
     10);
DAJE 1560··NEXT·pn
EAAP 1570··SOUND·1,90,2,10,,1
DAPC 1580·NEXT·pr
BAGB 1590·'
IACF 1600·'·The·bit·at·the·start
BAPA 1610·'
ABFG 1620·li=4:·x=1:·y=1:·qu=0:·le=0:·dir$=rt
     $:·pts=1:·rh=3:·nt=0
PAOI 1630·FOR·o=1·TO·119:a(o)=1:b(o)=1:NEXT·o
     :·over$="NOT":·ch$="1"
JAEM 1640·PRINT#1,"Lives:";li;"·Length:"
KAPE 1650·IF·spd$="FAST"·THEN·PRINT·tpoff$;
IAAG 1660·GOSUB·1900·'get·1st·point
GACK 1670·t=TIME·'set·timer
DAID 1680·CALL·&BB03
BAHB 1690·'
GADE 1700·'·Honey·Nut·Loop
BAAB 1710·'
DAPN 1720·LOCATE·x,y
GAKH 1730·CALL·copychr,@ch$
OANA 1740·IF·ch$<>"·"·THEN·GOSUB·1900:·IF·ove
     r$<>"NOT"·THEN·2120
EALI 1750·PRINT·head$;
KADI 1760·rt=rh-le:·IF·rt<1·THEN·rt=rt+119
GAEC 1770·LOCATE·a(rt),b(rt)
LAOG 1780·IF·nt·THEN·nt=nt-1·ELSE·PRINT·tail$
     ;
LAAF 1790·i$=UPPER$(INKEY$):·IF·i$<>""·THEN·d
     ir$=i$
LAHJ 1800·IF·dir$=up$·THEN·y=y-1:IF·y=0·THEN·
     y=24
LAFI 1810·IF·dir$=dn$·THEN·y=y+1:IF·y=25·THEN
     ·y=1
LAAI 1820·IF·dir$=lf$·THEN·x=x-1:IF·x=0·THEN·
     x=40
LAFJ 1830·IF·dir$=rt$·THEN·x=x+1:IF·x=41·THEN
     ·x=1
IAEK 1840·rh=rh+1:·IF·rh=120·THEN·rh=1
FAMM 1850·a(rh)=x:·b(rh)=y
IACJ 1860·GOTO·1720·'main·game·loop
BAHB 1870·'
LACH 1880·'·"CRASH·Course·In·Brain·Surgery"
BAJB 1890·'
LAHN 1900·IF·INSTR("123456789?",ch$)=0·THEN·1
     920·ELSE·1970
EABC 1910·'·----·Oops·---
JAOM 1920·li=li-1:·LOCATE#1,7,1:·PRINT#1,li;
HAML 1930·IF·li=0·THEN·over$="DEAD"
FABJ 1940·SOUND·1,300,15,15,,1,1
GAJG 1950·RETURN·'to·HN·Loop
EAFO 1960·'·----·Scored·---
NAOL 1970·IF·qu=1·THEN·over$="DONE":·RETURN·'
     to·HN·Loop
FAMC 1980·SOUND·1,100,10,10,,1
IABD 1990·le=le+pts:·nt=nt+pts
HADF 2000·LOCATE#1,18,1:·PRINT#1,le;
IAII 2010·PRINT·tail$·'eat·number
FAHN 2020·IF·le>99·THEN·qu=1
JAGA 2030·LOCATE·INT(RND*39+1),INT(RND*23+1)
LAPH 2040·CALL·copychr,@ch$:·IF·ch$<>"·"·THEN
     ·2030
EBND 2050·IF·qu=0·THEN·pts=RND*8+1:·get$=no$+
     MID$(STR$(pts),2,1)·ELSE·get$=no$+"?"
CBJE 2060·IF·spd$="FAST"·THEN·PRINT·tpon$get$
     tpoff$;·ELSE·PRINT·get$;
DAON 2070·LOCATE·x,y
GAEG 2080·RETURN·'to·HN·Loop
BACB 2090·'
IACM 2100·'·"Oh·dear...·you're·dead."
BALA 2110·'
FADL 2120·secs=(TIME-t)/300
EAJL 2130·WHILE·rt<>rh
KAME 2140··LOCATE·a(rt),b(rt):·PRINT·tail$;
KACP 2150··SOUND·1,90,1,10,,1,1:·FOR·o=1·TO·2
     0:·NEXT·o
IAAP 2160··rt=rt+1:·IF·rt=120·THEN·rt=1
CAIB 2170·WEND
MAME 2180·LOCATE#1,18,1:·PRINT#1,le;"·Time:";
     secs;"·";
ABPF 2190·IF·over$="DONE"·THEN·PRINT#1,CHR$(2
     24);·ELSE·PRINT#1,CHR$(225);
NAHO 2200·IF·over$="DONE"·THEN·sh=sh+1:·IF·sh
     =6·THEN·sh=1
GALB 2210·FOR·o=500·TO·1·STEP·-1
EABD 2220··ol=o*0.025+2.5
KAFB 2230··SOUND·1,o,1,ol:·SOUND·2,500-o,1,ol
     ,,,1
CAGL 2240·NEXT·o
FALM 2250·CALL·&BB03:·CALL·&BB18
GAIF 2260·GOTO·1090·'new·game
```

Send us your stuff

Anyway, that's all we've got space for this month. Remember, if you want to see your handywork in print, just send your tapes or discs in an envelope marked 'Type-Ins' to the usual address, and remember to send an SSAE if you want your disc or tape back.

Maps for MicroDesign

Ever wanted to reshape the world in your own image? Well, you can start with the UK thanks to these new maps designed to be used with *MicroDesign*. Dave Golder explores.





Using *MicroDesign's* facilities you can make your own additions to the maps.

Have you ever met one of those smart alecs who ask you what the shortest distance between two points on the earth's surface is, and when you reply, "a straight line," they go, "no, it's a curve, because the earth's surface is curved." Well, next time, just tell 'em to dig their way between the two points.

Anyway, now I've got that off my chest I can get around to what it was that inspired the rant in the first place. Campursoft have released a series of UK maps for use their rather splendid *Microdesign Plus* DTP package, with a set of world maps set due to follow soon.

The UK pack comes on two discs containing an impressive range of cartographical delights:

1 Counties
2 Major motorways
3 Internal boundaries (ie, Scotland, Wales)
4 Major rivers
5 A coastal outline of the UK in double-thickness pixels
6 A coastal outline in single-thickness pixels.
7 Major town and cities.
8 A combined map of towns, motorways and cities.

Plus, there are a number of other outline maps of specific areas, such as Wales, the north of England, London and the Isle of Man along with a series of weather symbols you can use on the maps.

Each individual map is built up from a series of files; what you have to do is open up *MicroDesign*, then load and print each section a piece at a time in order. At full scale the maps are produced at a scale of 1: 4,120,000 (that's about 55 miles to every inch) which fits on an A4 sheet of paper.

As reference material the maps are extremely limited but presumably that's not their real purpose. Using *MicroDesign*'s facilities you can add your own information to the maps to annotate them to show, say, the distribution of MGM cinemas around the country (don't ask me why I decided to use MGM cinemas as an example) or draw on road routes.

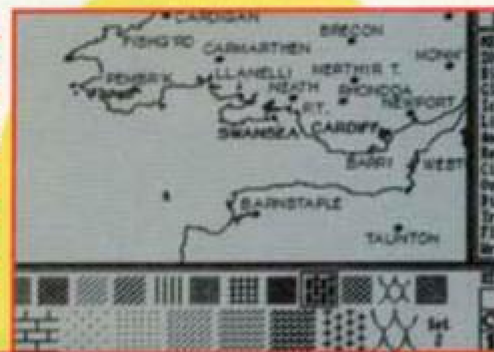
It's a shame that specific sections of the maps (ie, ones you want to use as opposed to the sections they're already broken down into) can't be imported into *MicroDesign* for use on a DTPed page. And a few more detailed maps of major towns, cities and A roads would have been welcome. But as they stand they're still useful additions to your disc collection if you've got already *MicroDesign* and you need some basic maps of the UK to adapt for your own uses. And if you're doing geography at school or college then the forthcoming world maps are going to be a major labour-saving way of sprucing up those dull essays.

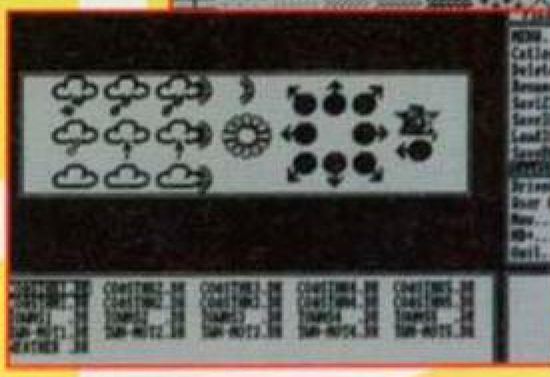


For some reason Campursoft have filled up the gaps on the discs with pictures of geishas.



Swansea – that's where you'll find Quantum now, by the way, just in case you were wondering.





Getting the full picture

Each of the maps comes in sections saved in different files. To get the full picture you need to load then print each file in turn.



Details

PRODUCT: Maps for *Micro Design*
PRICE: £12.99 (£11.99 on ROMDOS format)
Formats: 3-inch discs, 3.5-inch discs, ROM DOS discs.
AVAILABLE FROM: Campursoft, 10 McIntosh Court, Wellpark, Glasgow G31 2HW
☎ 041 554 4735.

The Examiner

And on the 32nd page the editor did say, "let there be a text adventure column." And Debby Howard did oblige with words of wit and wisdom... (who's writing this stuff?)



I see they've cut the budget on *SeaQuest*.

Toyhaven

REVIEW

Price: £1 on disc (you need to send a 3-inch or 3.5-inch disc with your order). **Available from:** John Reilly, 15 North Green, Forches Estate, Barnstable, Devon, EX32 8EA. **Crossed cheques or postal orders should be payable to:** J. Reilly.

Sandy had a teddy bear that she adored. Unfortunately her parents decided to throw her teddy bear into the rubbish bin, for the dustbin men to take away, which they did the next day.

Toyhaven is where unwanted toys go when a child has outgrown them. But what happens if, like Jacob, the toy is loved so much? Santa is the only person who can make Jacob the teddy as good as new, then return him to Sandy. The question is – can you get Jacob to the North Pole?

This is a GACed adventure by John Reilly, and if you like pictures then you're in for a treat as every location is accompanied by a picture, with a compass showing the available exits. The graphics are pretty good but you tend to the see the same ones over and over again. It has a nifty loading program which gives you the choice of either playing the game or checking out such things as game info, vocabulary, clues and an address from where to get help. You can even decide whether you want music while you play (although turning it off actually turns it on and vice versa). Er, and with that I've run out of good things to say about the game.

Although I could not find any programming errors, there seems to be quite a lot missing from this adventure, and it's is a typical case of an adventure that is in desperate need of a playtest. There are only 27 locations in total, and you can only examine eight things – the ladder, star, hook, paper, angel, chest, noddy and the box. The text for locations is poor and not very descriptive; for example at the start nearly every location you come across has something like, "I'm at the edge of a cloud," and that's about it. No wonder it's only 37k.

Even when you come across a character, like the Action Man who's got quite a major role, you can't to examine them, talk to them or do anything much else to them. Okay, you can say "BANG" to the Action Man, but since there was no indication that you were supposed to do anything like that, how is the player to know?

Toyhaven is riddled with such puzzles, and definitely not for the beginners which it is supposed to have been written for. More experienced players will just find it too small and boring.

32%

Where to go

If you're looking for new and re-released adventures, then drop these people a line (enclosing an SAE of course) for their latest stock lists.

- **WoW Software, 78 Radipole Lane, Weymouth, Dorset. DT4 9RS.**
- **Adventure Workshop, 36 Grasemere Road, Royton, Oldham, Lancashire, OL2 6SR.**
- **Amstrad Adventure Solution Service, 10 Overton Road, Abbey Wood, London SE2 9SD.**

Cluepot

Stephen Bosco, being the nice chap that he is, has sent me a guide to *Five On A Treasure Island* which hopefully will answer the loads of letters that I get every month from frustrated readers.

1. First of all, wait until the game says that, "You feel the train stop".
2. Leave the train.
3. Follow aunt Fanny to the shop.
4. Enter the shop by going west.
5. Buy some ginger beers and ices and then leave the shop.
6. Become George and go down to the shop.
7. Become Julian and give George the ices.
8. George is now your friend you can ask her about Jimmy, aunt Fanny, uncle Quentin, Joanne, the cook and Kirren Island.
9. Go to Kirren cottage.
10. Open the door and go to the sitting room.
11. Tell Dick to go north.
12. Turn on wireless and Joanne will enter.
13. Become Dick and go north and west.
14. Enter store cupboard.
15. Get the cake and the scones.
16. When you go out Joanne will be there. Repeat the process to get back in because you need the spade.

Lords & Ladies of Adventure



If you're stuck on one of the games listed below, the kind souls listed alongside are willing to help you out. Please remember to enclose an SAE with your enquiry and DON'T ask for a full solution, as you might be disappointed. If you want to become a Lord or Lady please write in to us here at The Examiner, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW with your full list.

- **Virtually every Amstrad adventure ever – Joan Pancott ☎ (0305) 784155 between 1pm and 10pm.**
- ***Adult 2, Boredom, Can I Cheat Death?, Doomlords I-III, Dungeon, Firestone, Jason & The Argonauts, River, Spacy, Tizpan, Welladay* – Stuart Mainland, 2 Douglas Road, Coylton, Ayr, KA6 6JJ.**
- ***Five On A Treasure Island, Werewolf Simulator* – Samantha Blair, 21 Obelisk Rise, Kingsthorpe, Northampton, NN2 8QT.**

READER ADVERTS

Bargains galore and much, much more in the CPC second-hand superstore. Or, in other words, here are the small ads...

FOR SALE

AA's, 40 with all tapes £50. ROMbox and MAXAM £25, AMX mouse and software £50, Multiface II £25, The Insider £5. Tel Darren on 0302 864730.

Games, about 80, all boxed and with instructions. All 80 just £25 plus P&P (all tapes). Phone Simon on 081 806 5723, after 5.30pm.

New 3" DDI disk drive, 64k memory expansion, stealth joystick. Also 464, record key is faulty, colour monitor, manual, various tapes. The lot £150.00. Tel 051 928 6740. Have bought 6128.

Multiface II £25. AMX mouse, art and Stop Press £50. 30 3" disks £30. Light Gun plus 10 games £25. Star LC24-10 printer @100. Tel Darren 0302 864730

Amstrad 464 plus, colour monitor, printer and 3.5 inch disk drive, joypad, disks, tapes, manual and AA mags. Worth over £700, will sell for £500. Phone after 6pm 0246 239113.

6128 plus, colour monitor, two 3.5" drives, Multiface, Light Gun, Sony tape recorder, two joysticks, mouse, widget, MP3+ TV tuner, loads of games etc. Boxed, as new £425. Tel 0257 268005.

Amstrad serial printer 8056. Package includes RS232 connector, printer leads, paper, instructions on tape. Complete package £40 + P&P. Phone 0642 585934 and ask for John.

AMX mouse and art package £15, MP-2 colour TV modulator £20, Siren 800k formatting package for use with 3.5 inch drive £5. Will swap for Mega Drive games. Phone 0757 706881.

Amstrad CPC game tapes £2.50 each. HeroQuest for sale only £5. Send SSAE for details to J Cunningham, tape, 33 Welland Crescent, Stocton on Tees, Cleveland.

Printer, Star LC24-10 £100, MAXAM + 4 socket ROM board £25. MAXAM plus ROMbox £25. RAMDOS £10. The Insider £5. Tel Darren on 0302 864730.

Amstrad CPC464, green screen monitor, modulator, 2 joysticks, 70 games, 4 AA cover tapes, teach yourself BASIC parts 1 and 2. £120 ono, tel 0355 228851 (after 6 pm).

Bargain of the year. Amstrad CPC464 computer, colour monitor, full manual, joystick +50 games. Excellent condition. Plus 20 AA mags. £75 ono. Tel David on 0375 843096.

Over 300 games for sale. CPC464 tapes ranging from 50p to £2. Top quality. Phone 0375 843096 for complete list.

DK'Tronics 256k memory expansion bank switch software for Amstrad CPC 6128, full instructions £55 includes P&P. Tel Alan Ricketts 0989 720479.

Game Over 2, Great Gurianos, Shark, Grand Prix and Exolon for sale. £3 each. Contact Ewan Riley, 67/1 Ferry Road, Leith, Edinburgh EH6 4AQ.

AA covertapes nos 1-5, 12-18, 20-34 50p each. Also Gazza 2 original £5. Two GB games - World Cup and T2, £5 each. Also Liverpool video team of the decade £8. Send SSAE to Alan Archer, 21 Vandyck Avenue, Keynsham, Bristol BS18 1LE.

CPC464, disk drive, 464 upgrade, Multiface II, joystick, dustcover, over 1000 games on disk and tape, 100 Amstrad Actions, 55 CWTA, other books all cover tapes, £175 ono. Call Cardiff 0222 575530, ask for John.

Amstrad Action issues 92-100 with all covertapes, all in very good condition, £26 worth of mags will sell for £10 to £15. Phone Daniel on 0757 706881

Amstrad CPC464, 128k memory, green screen monitor, joystick, many AA's, over 300 pounds worth of software, guaranteed until Nov 94 (renewable). £150 ono. Phone Mike on 0562 885383 (West Midlands).

6128 colour, datacorder, joystick, manual, covertapes "classic collection" disks, Kick Off 2, Leaderboard, Chess, Snooker, Infiltrator, Ace of Aces, Six Blanks. All VGC, unwanted project finished. £150 plus postage. Tel 081 518 3335.

464 keyboard £15, manual £5, GT65 green screen £25, classic collection covertapes £5. Books: Amstrad Computing £3, Practical Programs for the 464 £3. CP/M+ disks and manual £15. 081 518 3335.

CPC6128, colour monitor, tape deck with leads, magazines. Games on disk and tape, manual, utilities disks, instructions for extras on disk. £300 ono. Phone Eric in Warrington after 5pm (0925)791557.

Printer - Amstrad DMP3000, plus manual ect. ROMBO ROMbox, Protext on ROM - sensible offers to Dougal Campbell on 0389 79894 - nr Glasgow.

Amsrad CPC6128 with 3.5 inch disk drive, printer, loads of mags, AMX mouse and art package, Mini Office 2 and TV modulator. Offers on 0757 706881, from 4 o'clock to 10 o'clock.

Amstrad CPC6128, Multiface 2, Stop Press and Advance Art Studio, many games, printer, lead, tape deck and joystick, plus table. Excellent condition £299 ono. Phone 0234 870571, will split.

Lots of CPC software including Bards Tale, Hudson Hawk, Smash TV and the insider. For list send SSAE to Daniel Beeston, 4 Pentre Close, Ashton, Chester CH3 8BR.

Amstrad 464, colour monitor, 20+ games, Amstrad Action magazines 88-100 with covertapes and joystick. £125 ono, call Edward on 0244 4570435.

Amstrad CPC464 with colour monitor, £110. AlsoAmstrad Action from issue one to 100 complete with every covertape £100. Tel Frank on 071 639 9319.

Amstrad CPC464 with green monitor, over 150 games, 30 AA magazines, joystick, manual, good working order - @200 ono. Tel 0455 274276.

Multiface II and insider for 6128+, £35. West Bromwich 021 588 2537, as new.

ACU magazines (July 1991 - May 1992), CPC Attack magazines (June 1992 - November 1992). £1 each including P&P. Also French Test (disk) by GMF Programs - ideal for GCSE French revision, £8 inc. P&P. Contact M. Ruegg, 8 The Horse Park, Carrickfergus, Co Antrim BT38 7ED.

Amstrad 464 with green monitor and manual, 2 joysticks approx 75 games plus computer desk. £150 ono. Contact Ian on 0738 52859.

Several Amstrad CPC 464 keyboards. All VGC, full working order. To clear £26 each, inc P&P. Write to D Barrett, 3 Russet Close, Swanmore, Southampton, Hampshire SO3 2RU.

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Firmware specification manuals for cpc 464, (Soft 158) operating system, (Soft 158A) DOS-ROM. £15 the pair, plus postage or collect. K Wright, 107 Oxford Road, Wokingham, Berks RG11 2YL.

WANTED

Pan pal, male or female, 20-23, to talk about computers and games and talk in general. Write to mark Lambert, 16 Rothesay Place, Kilmarnock KA3 1SZ.

Amstrad 6128 manual urgent needed. Starting from scratch. John, Herts. 0707 375636.

Adventure games wanted for Amstrad 6128, preferably on disk. Also require any adventures written using PAW or GAC. Telephone Bill on 0707 262914 before 3pm or after midnight.

Multiface 2 with manual, also games on disk or tape. Send lists to Mr Hirst, 29 Oak Lodge Road, Sheffield S30 4QA. Ring 0742 847184.

TV Tuner for use with CTM644 monitor. Telephone Dave 0928 560918.

Required: CPC464 cassettes, especially Soccer cassettes and game cassettes such as Yahtzee, Patience and other card games. Send list and prices to G Ford, 20 Carlton Road, Romford, Essex RM2 5AA.

Free PD and listings. Tape or disk. If you want tape/disk back send SAE. Please send to J's PD, 33 Welland Crescent, Stockton on Tees, Cleveland TS19 0UT.

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Nirvana disk copy utility. For 6128 Plus. Also tape-to-disk copy program for 6128 Plus.

Wanted! PD for new library. Tape or disk. Anything considered. All disks returned. Contact Chris on 0254 67755 or write to C Arrowsmith Flat 1, Mowbray Avenue, Blackburn BB2 3EU.

Penpal wanted. Any age between 9 and 13 wanted to swap games, pokes and other things. Write to 46 Grantchester Road, Cambridge CB3 9ED.

Desperately needed - the Firmware Guide byt Bob Taylor and Thomas Defoe. Will swap Switchblade (tape, boxed with instructions) or will negotiate. Fraser Clark, 2 Geck Street, Allora, 4362 Queensland, Australia.

Wanted. AMX Pagemaker or any program for printing flowing text or old English. Phone Eric on 0904 623554 York. Write 7 Scafell, Close Rawcliffe, Nr York YO3 6JT.

OTHER

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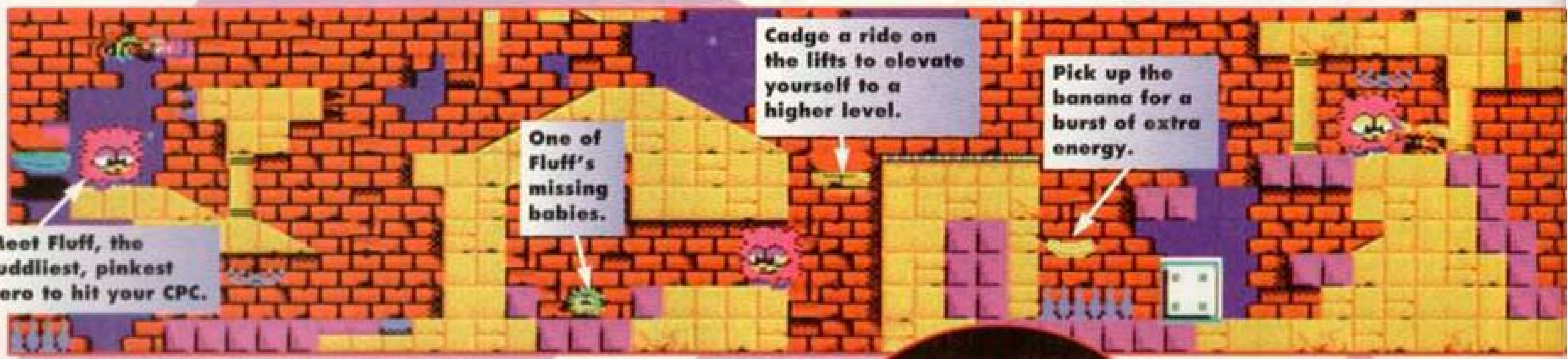
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Fluff: work



"Work in progress?" I bet you're thinking. "What do they mean, 'work in progress?' They said they were going to review the thing." Well, we are, sort of, but we can only review what we've seen so far. We'll let Clur explain. It's like this y'see...


Fluff with four of her babies – ain't it just so cute?

Deadlines. Don't you just hate them? If you didn't before, you will after this tale. Because you were expecting a review of *Fluff* and, indeed, we were expecting to bring you a review of *Fluff*, but to be honest we couldn't. We were promised a reviewable version of the game in time for this issue of *AA*, but Rob Buckley, the programmer, turned up one day before our deadline for the issue (this stuff is about as up-to-the-minute news as you'll ever get in *Amstrad Action*), with a version of the game that had only a few levels of the 12 levels it's ultimately going to have in an anywhere near completed state.

We could have mocked up a review based on what we'd seen – you wouldn't have known that we hadn't seen the whole game. But that's not the way we do things around here – our only purpose in life is to bring you the facts.

But, we thought, we can't give the game all this build up (ie, sticking it on the cover) without giving you something in return, can we? So here it is, the full and up-to-the-minute update on the development of what could be the biggest thing to hit the CPC scene in a long while. And of course, if you can't be bothered wait for the next issue of *AA* to read our definitive view then you can draw your own conclusions from what you see here.




Has Fluff seen those enemies she's got to face on page 11?

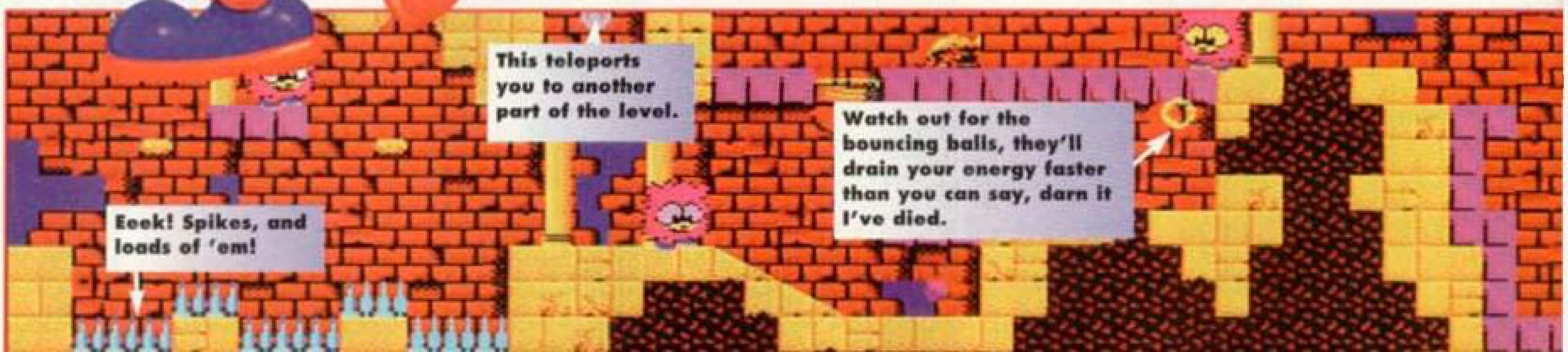
Radical stuff

You might recognise the name Rob Buckley; he's been dealing in the Amstrad market for quite a while now with programs like *Ball Bearing* and utilities like *Smart Plus*. Late last year he rang us up with a game he had in development that would stretch the CPC Plus to its limits with a platformer like no-one had ever seen before on an Amstrad (and it's obviously taking a bit longer to realise his ambition than he thought); but looking at what we've seen so far of the game, anyone who's ever played a console platformer will find it very familiar stuff.

The eponymous character is a ball of rather feminine pink fluffy stuff with a beak who has to work her way through a number of colourful and very different levels – for example, there are forests, building sites and an underground tunnel level to cope with.

But getting to the end of each level isn't just what the game's all about. You have to find a few items in order for the warp to the next level to appear. And these aren't the common or garden coins or stars that you normally have to collect in this sort of game – *Fluff*'s searching for her kids.

Fluff is a bit of a bimbo – she's ever so cute but she is seriously lacking in the brain department. If she was human she'd probably be called Sharon and have a boyfriend named Kevin who drives an old yellow Chevette – you know the type. But I digress, the point I want to make is that she's thick and that's all you need to



in progress



know. She's so dim-witted, in fact, that she's gone and lost all her children. You know how it is, one moment they're pulling on your apron strings, next moment they're on the back of a lorry heading for the municipal refuse site.

If the plot seems a bit skimpy that's because we just made the last paragraph up; Rob hasn't thought up a plot yet – but then nobody's ever played *Sonic The Hedgehog* for its literary aspirations. The sprogs haven't got names yet, either, because Rob just refers to them by their colours (*we could have one of those Blue Peter-type 'name the puppies competitions', but we won't – Dave*).

To reach all her kids she's going to have to do a lot of walking, jumping, running and, believe it or not, spinning. For some obscure reason lots of programmers seem to have got it into their heads that doing really speedy pirouettes should protect you from baddies (take a look at *Zool* on the Amiga or *Aero The Acrobat* on the SNES). It's a totally unnatural thing to do, even for an alien, but in the context of this game the idea seems to work really well – the graphics look like a glitch at first, but once you get used to it, the effect is pretty nifty. The difference between Fluff's spinning action and others I've seen, is that it drains her energy (but not as much as getting hit by a baddie). An energy bar is displayed in the top left-hand corner of the screen; when you run out of energy you lose one of your three lives, it's as simple as that. Run out of lives and you get thrown back to level one.



Think it looks like a building site? Good that's what it's supposed to be. I think.

Working your way around the levels isn't as easy as it first looks. *Fluff*'s movement is based on an inertia system (it takes you a while to build up to full speed from a dead stop); she even jumps further the faster she's moving at the point of take-off. Some of the jumps need to have *Fluff* running before she jumps if she's going to make it over the gap, which makes for a fast-moving game. Speed is of the essence in any decent platformer and *Fluff* can certainly shift.

I can't make any promises but we should be able to review the finished game next month (that's if our very own Richard Fairhurst has finished the soundtrack). But, for now, take a look at what we all think of what we've seen so far of *Fluff*.

Second opinion

It's hard to know what to say at this stage – *Fluff* is obviously well though out, with careful attention to detail, gameplay and all the other bits and pieces that could turn a reasonable platformer into the best CPC game ever, but there are still quite a few things that could do with more work than I think they'll receive:

- **The animation on some objects is too fast and way too jerky, such as the waves on the first level, which don't exactly strike you as having any amount of time spent on them.**
- **The inertia system is lovely n'everything, but *Fluff* does seem a little heavy, and it does take quite a while to get up to a reasonable speed.**
- **The gravity seems a little relaxed – whereas *Fluff* is heavy enough to take a while speeding up, when she jumps up, she drifts slowly downwards.**

This could be a game that could easily score around 80 per cent, but for 90 per cent it needs quite a lot of tidying up. Simon

First opinion

Okay, so here we are with less than half a game to look at and I'm supposed to give some sort of comment on it? I would normally reserve judgement until I've seen a finished version, but seeing as Dave begged me...

The first level, the only one that's almost completely finished, plays well – apart from a few minor bugs which I'm sure Rob will iron out (there seems to be a wayward attitude towards what's solid and what's not at the moment). I love the spin, that really works, especially as you can do it in mid-air too. Dodgy collision detection, though; at times it does seem to be quite a way off – if that isn't tided up then that's a good ten per cent off the final mark.

***Fluff* definitely has potential. It's got colourful backgrounds and cute characters (check out the blinking eyes on the main sprite), but it needs a lot of work still. If Rob Buckley puts in enough effort he could be in with a winner, *Fluff* won't change the CPC as we know it but it might well cheer up many a Plus owner. Clur**

Third opinion

Look, I'm having severe problems taking *Fluff* seriously. Sure it's fast. Sure there's lots going on. Sure the graphics are first rate. But it stars a blob of candyfloss with purple Doc Martens. I'm not being facetious here – I really find the character a turn-off. Why does the CPC need another cutesy platformer – *Bubble Bobble* and *Rainbow Islands* sewed up that market years ago as far as I'm concerned. I wish that Rob's programming effort had gone into something with a bit of a harder edge – maybe if he'd been inspired by *Flashback* instead of *Sonic*.

But yes, I'm being churlish, I suppose. With a bit tidying up and some sensible development in the levels to maintain variety and keep the game constantly challenging, it could turn out to be a truly great game, though probably not the best ever. I think maybe it tries a bit too hard and the gameplay gets bogged down by the snazzy techniques, but then, we did say that it was bringing console action to the CPC. Dave





Shoot-

Since the dawn of time, or at least the CPC, shoot-'em-ups have been thrilling gamesplayers. Clur discovers which blasters are more and which ones are less than the sum of their parts.

We get loads of letters from our readers telling us that we said a game was rubbish, but they bought it anyway and thought it was the best thing since sliced bread. Everyone judges the quality of a game by different criteria, here in the office we all like different things about different games. Dave likes *Rick Dangerous 2* because of all the puzzles, Simon likes *Elite* because there are no rules to the play as such, Lisa likes *Prehistoric 2* 'cause it's pretty and I love *Pang* for it's simplicity.

You see the problem is that you might have different ideas completely about what makes a good game from us. So each month we take a game genre and split the games up into various elements of the gameplay and tell you what games are really good or bad at doing those particular things. Here in the third of our series we take a look at the good, bad and gawd damn ugly of shoot-'em-ups.

ARCADE CONVERSIONS

In the beginning God said, "Let there be arcades and let there be huge video games machines that will swallow up copious amounts of teenagers' money". But then he noticed that the home computer user was lonely and decreed that the very same games that were in the arcade should be bought into the home on the personal computer. And it came to pass that there were arcade conversions for the CPC – some of them were very good, some of them were bad, but most of them were nothing like the arcade versions at all. This wasn't necessarily a bad thing – *R-Type* barely resembled its arcade ancestor but was still a good game, and there were some games that were almost perfect conversions but were still, hopeless because the original game was so bad.

Good: Smash TV (Ocean)

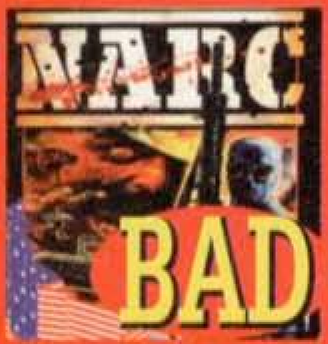
Even taking into account inflation, I reckon that *Smash TV* got even more money out of me in the arcades than *Virtua Racing* has yet (*and that's saying something – Ed*). It's based on the same sort of idea as the book *The Running Man* by Richard Bachman – an ultra violent, futuristic gameshow that wouldn't look out of place in a *Mad Max* film. All you have to do is run around, killing everything and picking up the prizes. The CPC version doesn't diverge much from the arcade original, apart from the fact that the sprites are a little smaller. It's just as quick, just as noisy and just as much fun.



Oh boy, look at those pecs!

Bad: NARC (Ocean)

The problem with *NARC* is that the arcade original relied on the kind of features which you could not hope to convert effectively to the CPC – sampled sound, stunning graphics and amazing speed. Once it had been stripped of these gimmicks what we were left with was a rather limp and confused blaster that moved at a snail's pace. Which just goes goes to prove that old adage: "Gameplay before graphics".



As Howard Jones once mused: don't be fooled by what you see...

POINTS OF VIEW



If what you're after is a bit of realism in your shoot-'em-ups then the best sort to go for are games in which your point of view is that of the protagonist's; for example, games in which you're piloting a spaceship from the cockpit, rather than watching the action from a nearby solar system.

Good: Academy (CRL)

The sequel to *Tau Ceti* was light years ahead of its predecessor. *Academy* takes you on 20 missions, on a multitude of planets. Even though your view is restricted by the limitations of the edge of the ship's windscreen, there's a scanner you can call up that brings up a radar display of any ships in your immediate vicinity.

Bad: Galaxy Force (Activision)

Okay, you're not actually looking through the windscreen in this one, but you're stuck so far up the ship's rear engines it's a near to getting the pilot's point of view as damn it is to swearing. And it's worth mentioning just to warn you away from it – with directional guiding arrows that don't work and sloppy graphics, the restricted view is hopeless.



Once upon a time in a galaxy far, far away some nonsense or other was going on.

THE COMPLETE PICTURE



Right since the dawn of shoot-'em-ups with *Space Invaders* and *Defender*, watching the action from an independent viewpoint has served its purpose just fine, thank you very much. All this point-of-view nonsense, is frankly, a gimmick when it all boils down, and while, when it's done well it can be very effective, it undeniably limits the gameplay. From a distance things can look very different; for starters you get to see what you're shooting at clearly, rather than just getting a glimpse of its tail before it blasts you with its rear rockets.

Basically, there's much more scope for spectacular graphics and more complex gameplay when you get the overall picture; think about trying to get all the elements of *Thrust* into a game that's viewed through the cockpit – it could probably be done, but it'd be pretty dull having to keep your eyes on dials telling you your altitude. And there's a more practical reason for watching the action from a distance; it allows for an element of strategy and puzzling

Check out last month's cover tape if you don't believe what we're saying.



the good, the bad and the ugly

...'em-ups

BODY COUNT

There's no point in pussy-footing around – shoot-'em-ups are about killing. Mary Whitehouse might not like it, and the 'video game as a necessary cathartic experience for our modern repressed society' might hold about as much water as a tea strainer, but it's the carnage that draws people in for whatever reason. And there's a whole shoot-'em-up sub genre in which the whole point is to kill as many of the enemy as possible. Personally I don't get much satisfaction from close combat games whether I'm shooting at my enemy or beating them up, but I know someone who does so I asked Simon for his opinion on this particular type of shoot-'em-up.



[illegible] Warriors [illegible] enemies, fab [illegible] [illegible] in fact entirely fab.

Good: Ikari Warriors (Elite)

The little guys that you have to kill in *Ikari Warriors* are so cute that it breaks your heart to blast 'em, but that's your job. They're little blue Ninjas, with tanks and the great thing is that you can steel their tanks and squash 'em with their own armoury. You won't be able to find *IW* in the shops, but do make an effort to track it down somehow, you won't regret it.

Bad: Operation Thunderbolt (Ocean)

The only nice thing that you can say about *Operation Thunderbolt* is that you can load it darned quickly because it's on cart. Everything else about the game is total and utter pap. The graphics are sad, the sound is buzzy and the gameplay is virtually non-existent. The chaps that you're blasting are right up at the front of the screen – you can see the whites of their eyes. But there are so many of the little beggars and they're all look the blimmin' same.



Op Thunderbolt is a sequel that's even worse than the original (don't believe the 85 per cent mark it got originally).



GRAPHICS

Whatever a game is about, whatever it's trying to achieve, it needs to look good. But we're not just talking flashy graphics here; most importantly the visuals need to serve the gameplay. Even serious, functional programs like spreadsheets and word processors have to be designed so that you can tell what's going on and games are no different. A shoot-'em-up could have the best feel, the toughest enemies and the fabbest weapons, but if you can't tell if you're shooting at a baddie or a bit of the background then you're really stuck. Alternatively, you can't but help feel cheated by games like *Blasteroids* which play well but look drab.



Starstrike 2 is like *Elite* with a lot more shooting.

Good: Starstrike 2 (Realtime Software)

A brilliant example of the use of 3D vector graphics in the world of CPC gaming, *Starstrike 2* plays very much like *Elite* except that the emphasis is on the shooting rather than the exploring. It's also a great example of what a sequel should be – a successful game improved on and expanded.

Bad: R-Type (Electric Dreams)

R-Type's dire graphics on the Amstrad stem from the fact that the game was a Speccy port, rather than coded originally of the CPC. The results are lacking in colour and detail. It plays okay, but if you want to impress your mates with the stunning graphic capabilities of your CPC then don't show them this one.



Anyone know what the R stood for in *R-Type*? Nope, nor do we.

to be introduced into the gameplay, which handily leads us on to *Cybernoid*...

Good: Cybernoid 2 (21st Century)

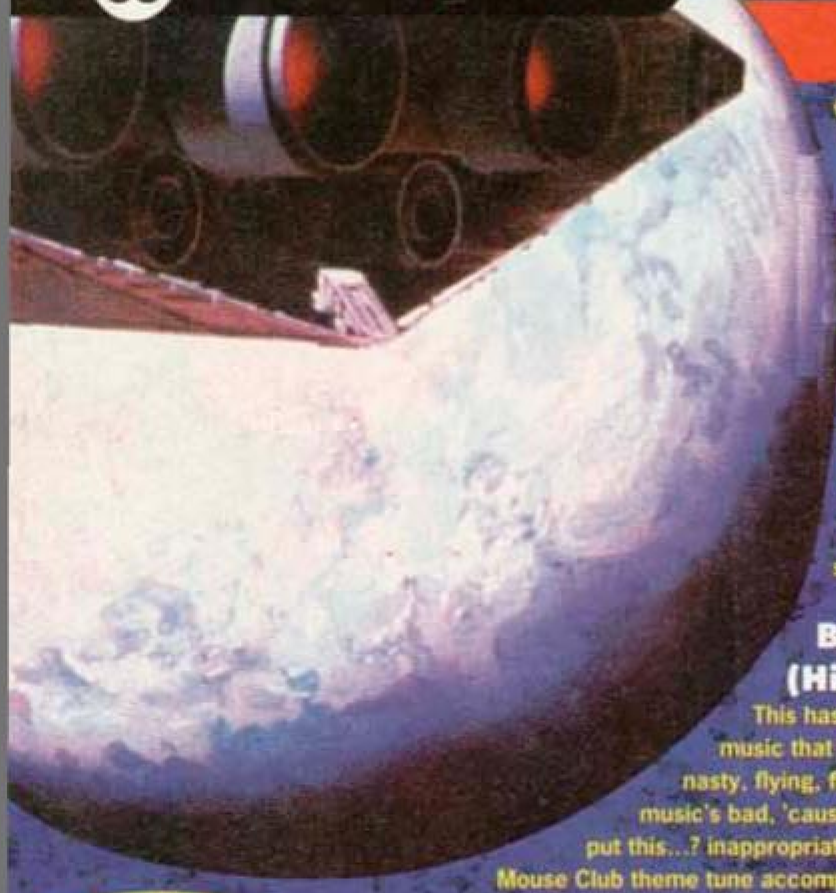
Imagine, if you will, *Cybernoid 1* or *2* viewed from the cockpit of the ship; not only would it be impossible to play because you wouldn't be able to work out the puzzley elements of the games (which are what give them a lot of their character), but all those gorgeous graphics would be straight out the window (or should that be through the cockpit window?). *Cybernoid 2* is undoubtedly one of the genre's finest moments.

Dragon Spirit (Hit Squad)

If you're going to look at a game from a distance then for heavens sake at least make the viewpoint realistic. In what situation, I ask you, would you ever be placed way above the flying object that you're controlling? Never, that's when. And guess where the viewpoint is in *Dragon Spirit*? Apart from that, it's a completely hopeless game in general.



Let's face facts – this dragon's got about as much spirit as an empty bottle of Jack Daniels.



MUSIC

Okay, so a great game won't be harmed that much by inappropriate or downright dire music, but a mediocre game can be helped along in the score stakes by a stonking tune. A theme tune needs to enhance the atmosphere of the game; catchy ditties alone are more likely to make you turn the sound down after a few plays.

Good: Zynaps (Hewson)

Surely one of the very few games worth buying just to listen to the theme music. Gameplay wise it's not so hot – the collision detection's appalling, but the tune's lovely. A sort of hippy laid-back space flight melody, fab.

Bad: Dragon Spirit (Hit Squad)

This has got to be the silliest match between game and music that I've ever heard. Twee tunes do not go with nasty, flying, fire-breathing dragons. Not that the music's bad, 'cause it isn't, it's just that it's... how can I put this...? inappropriate. It's a bit like having the Mickey Mouse Club theme tune accompanying the Charge of the Light Brigade.

GOOD



The oldies are almost always the goodies and *Zynaps* is no exception.

Yeuch, it's *Dragon Spirit* – someone get me the ear-plugs quick!

BAD



GOOD



Bang, bang, shooty, shooty, pow, zapp...

SOUND FX



A shoot-'em-up with poor sound effects is like Lisa without shopping bags, Dave without teeth and Hairy without the hair. Shoot-'em-ups are not games that will stretch your mind, the only reason the genre was born was to have some fun, and where's the fun in games with wimpy little sound effects. Even if a gun looks like a gun and kills like a gun, it still doesn't feel like a gun unless it sounds like a gun.

Smash TV (Hit Squad)

Everything you kill or pick up seems to have its own particular sound. Darned useful because the game is so fast moving that you need good sound effects to keep you up to date with what's going on around you.

Starfox (Ariolasoft)

Remember the hoo-ha when Nintendo released *Star Wing*? Well, this game is what the hoo-ha was about. Originally they were going to call the Nintendo game *Starfox* ('cause it was about a fox in the stars, see?), but just before its release, after all the ads and the previews in the various computer mags had appeared, someone noticed that there had been another game of the same name and a similar style way back in the good old days. So promptly they changed the name of the game to *Starwing*, the name by which we all know and love it today. The point of this whole thing was to tell you that the *Starfox's* sound effects are not worth talking about so I won't.



Yes, it's the SNES game that wasn't called Starfox

BAD



LIGHT GUN GAMES

The light gun has got to be one of the most under-utilised accessories for the CPC ever. And why? Because it's rubbish that's why. It's as light as a feather with a soggier trigger than the cap gun I had when I was ten. Even worse is the pathetic selection of games available for it. Not only are there very few, but none of them come up to scratch in the gameplay department.

Good: Skeet Shoot (Trojan)

The best of a bad lot, *Skeet Shoot* takes you to the estate of a large country manor to practice your clay pigeon shooting. At least I suppose it won't have the Mary Whitehouse clan up in arms – shooting lumps of clay thrown into the sky can't entice you to go do a bit of joy riding, can it?

Bad: The Enforcer (Trojan)

Don't, whatever you do, waste your money on this atrocious excuse for a game. You face a short row of buildings. People poke their heads out of the windows and doors and you have to shoot the baddies before they shoot you, while taking care that you don't hit the non-baddies or the police.

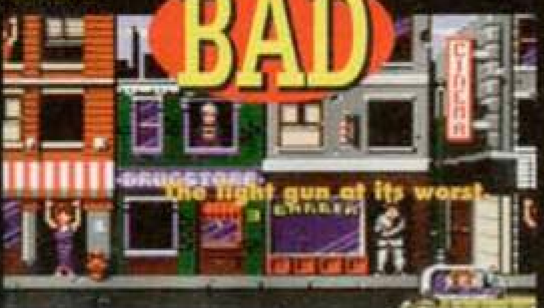
Fun huh?



The light gun at its best?

GOOD

BAD



The light gun at its worst



GOOD

Lovely jubbly *Nemesis*, what could be more relaxing?

PICK-UPS

A shoot-'em-up, like life, is all about getting hold of all you can before you die. In life it can be money, love, a career or anything that you want dearly. But





Kill everything in *Fire and Forget* and forget all your troubles (*urgh - Dave*).

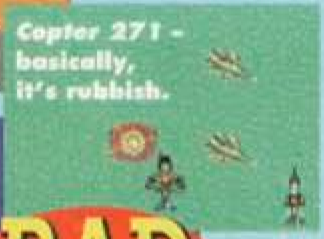
GOOD

EVERYTHING MUST GO

If you've had a hard day at work, there's nothing like coming home, slipping into something more comfortable, running a relaxing Radox bath and indiscriminately destroying loads and loads of alien spacecraft, buildings, ships, helicopters, anything, in fact, stupid enough to get in the way of your guns (*but not while you're in the bath, I hope – safety consciousness editor*). These blast-anything-and-everything games don't tax your mind, don't educate you in any way, (though they may arguably help you with your hand/eye coordination if you really need an excuse) but they definitely are great fun.

Good: Fire And Forget (Titus)

I know I mentioned *Fire And Forget* last month in the Good, Bad and Ugly of Driving Games feature, but I did say there that it was more of a shoot-'em-up with driving bits than a driving game with shooting bits. As a shoot-'em-up it fares well in the good and bad stakes, 'cause the further you go, the more there is to shoot and the tougher getting any further down the road gets.



Copter 271 – basically, it's rubbish.

BAD

Bad: Copter 271 (Trojan)

Copter 271 must of seemed like a good idea at first, to have a vertically scrolling playing that's actually wide than the screen on your monitor. But in reality it just doesn't work. The main problem is that baddies can sneak up on you from the side without you having an inkling that they were there just off screen but on the playing board if you know what I mean. You can't go backwards so if something appears to the side of you there's absolutely no way on earth of killing the darn thing.

KNOW YOUR ENEMY

Without baddies to shoot at, shoot-'em-ups would be pretty darned useless, wouldn't they? Enemies can come in all shapes and sizes, from thick soldiers who seem to throw themselves into your fire to mammoth to spaceships that won't stop attacking until you blast them into space dust. But the important thing in any particular game is variety. Whether you're piloting a spaceship of yomping through the jungle, a game will only keep your interest if the foes you face don't all attack in the same predictable way.

Commando (Elite)

Baddies are like number 23 buses, you don't see one for ages and then ten come at once, and all from the same direction. Thank goodness for *Commando*, one of the great exceptions to the rule. They keep on comin' at ya from all directions and with loads of different weapons. You'll be attacked with bullets, grenades, tanks as well as a bit of hand to hand combat. You don't get much of a chance to sit back and catch a breather, but you'll be enjoying so much that you won't want to.

Bad: Mercs (Kixx)

Okay, not all of the baddies in Mercs are the exactly the same – the occasional jeep or tank livens things up for a few nanoseconds. But for the vast majority of the game you keep coming up against the same old terminally dim soldiers who aren't particularly difficult or interesting to kill. There's more variety on Sunday afternoon television (sport on all sides).

GOOD



BAD



in shoot-'em-ups it's about getting guns – more guns, bigger guns, automatic reloading guns and more effective guns. But you don't get anything for free, you have to work hard to get what you want out of life and computer games.

Good: Nemesis (Hit Squad)

The pick-up is a strange little beast, it's not the pick-up itself that makes the difference it's what the pick up does. In *Nemesis* the pick-ups give you such stonkingly good extra weapons that you find yourself actively seeking them out, not just meandering along and hoping one appears in front of you. And that's the way it should be.





Copter 217 hits the headlines yet again.

BAD

Bad: Copter 271 (Trojan)

Yawn! This cart game has to be one of the most boring slices of software on earth, with pick-ups to match. Okay, so they give you extra weapons, but the weapons you get don't seem to enhance your fire power that much. Oh yeah, it shows up on screen alright, as two streams of bullets, but the baddies seem to take exactly the same amount of time to kill as when you haven't got the pick-up. Hopeless.

GOOD



Nintendo weren't going to get their sticky mitts on our *StarFox*.

MISSIONS

Sometimes you might have the urge to stretch your mind a little, but still release the tensions of the day in a good old, no nonsense blast-'em-up. That's when you need a game with a purpose, a game with a mission (eight missions seems to be the norm). The best missions are those in which you aren't automatically lead to the objective (like you are in *Navy SEALS*), but you have to search around a bit.

Good: Starfox (Ariolasoft)

The famous *Starfox* rears it's beautiful head in this feature once again. Each level, as well as asking you to survive various onslaughts from enemy fighters, sets you a task, for example finding an electron storm and reporting its location. The best thing is that the difficulty level of the missions increases at a sensible rate, unlike a lot of games where the first level is really tough and the rest don't offer any additional challenges (did somebody mention *Saint Dragon*?).

Bad: Operation Thunderbolt (Hit Squad)

Far be it from me to contradict previous *AA* crews but I reckon they must have been mad giving this trash 89 per cent (*I agree – Simon*) (*me too – Dave*). It's dire, and the missions, some dull, clichéd nonsense about 'liberating' various enemy-held areas, add about as much to the gameplay as the pixel-sized gun sights and naff sound fx.

BAD



Operation Thunderbolt – not very good, really.

Is it or isn't it?

The main argument that erupted over this feature was whether *Pang*, and consequently *Zap'T'Balls*, are shoot-'em-ups. I reckon they are, the rest of the crew reckon they aren't. The one thing we did agree on was that they're both darned fine games, they both wouldn't fit into any other category and so we might as well mention them here. I mean, just because your gun shoots cork-screws instead of bullets most of the time doesn't mean they aren't essentially shoot-'em-ups, does it? And... (*let's not start all that again – Dave*).

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AA75: *Cisco Heat* (demo), *Impossaball, Tir Na Nog.* Inside: Buyers' guide to peripherals., *Smash TV, Turtles Coin-Op.*

AA76: Covertape: *Graphic Adventure Creator, PageMaker Plus, Southern Belle, Extended BASIC* for 464 owners. Inside: Peripherals part 2, *Dizzy's Excellent Adventures, The Simpsons, Super Space Invaders, OutRun Europa, Cisco Heat, Pitfighter.*

AA77: Covertape: *Seymour Take One* (mini game), *Firelord, Football Forecaster, Fonts.* Inside: The French Connection, GAC tutorial. Reviews: *You're Learning* (educational pack), *Paperboy 2.*

AA78: Covertape: *Space Crusade* (demo), *The Sphinx Jinx, Shockway Rider.* Inside: Guide to PD. Reviews: *Space Crusade, Double Dragon 3.*

AA79: Covertape: *Ranarama, Maze Mania, Meaning Business* (suite of business utilities). Inside: Behind the scenes at *AA*. Reviews: *Blues Brothers, Rodland, Prehistorik.*

AA80: Covertape: *Strykor and the Crypts of Trogan* (demo), *Anarchy, Croco Magneto, GPaint.* Inside: How a game is made (Seymour), buyers' guide to word processors. Reviews: *Titus The Fox, Stryker.*

AA81: Covertape: *Forbidden Planet, The Addams Family* (demo), *Sprite Designer.* Inside: Fanzines, buyers' guide to DTP.

AA82: Covertape: *Lemmings* (demo), *Dragontorc, PowerPage.* Inside: Making dosh from programming, guide to art packages. Reviews: *Lemmings, Addams Family.*

AA83: Covertape: *Defenders of the Earth* (demo), *Drehdriss, Supersonic* (music). Inside: The French CPC scene, buyers' guide to educational software. Reviews: *Turbo the Tortoise, Grell and Fella.*

AA84: *Famous Five on a Treasure Island, Notepad, Liteprog.* Inside: 3D games. Reviews: *Hideous, Bruneword ROM.*

AA85: Covertape: *On The Run, Link, Worktop, Disk Organiser.* Inside: Making music. Reviews: *American Tag Team Wrestling, Soccer Pinball.*

AA86: Covertape: *Glider Rider*, animation utilities. Inside: MIDI music. Reviews: *Wild West Seymour, Reckless Rufus.*

AA87: Covertape: *Nexor, Pakman, MPack, Pilot* (very simple programming language). Inside: Dizzy, this is your life. Reviews: *Football Manager 3, Super Seymour.*

AA88: Covertape: *Tankbusters, Penguins, JL-Copy* (tape to disk utility). Inside: Videomaster, top CPC add-ons. Reviews: *The Shoe People, Crystal Kingdom Dizzy, Robin Hood.*

AA89: Covertape: *Wriggler, MagicDOS, Superchars.* Inside: The European demo scene. Reviews: *Zap'Y'Balls, Crazy Cars 3.*

AA90: Covertape: *Steve Davis Snooker, LARA* (Machine Code Utility). Inside: 100s of Multiface POKEs. Reviews: *Nigel Mansell's World Championship, Popeye Collection.*

AA91: Covertape: *Tasword, Colossus Chess.* Inside: The future of the CPC, WP tips.

AA92: Covertape: *BooTracker* (music program), *Syntax, Balloon Buster.* Inside: Complete guide to data storage. Reviews: *Soundtrakker, The Simpsons.*

AA93: Covertape: *Racing Boxform, Mystical, Who's Afraid Of The Balrog?* Inside: Spreadsheets and databases, UAUG interview, setting up a PD library. Review: *Super Cauldron.*

AA94: Covertape: *Instant Recall* (database), *Contraption.* Inside: The best of everything – the *AA* awards ceremony. Reviews: *MicroDesign 2, Disc Archiver, Prehistorik 2.*

AA95: Covertape: *MasterCalc* (spreadsheet), *Biff.* Inside: *Street Fighter 2* – the myth starts here. Reviews: *Pro-Ext, SmArt Plus, Trakers.*

AA96: Covertape: *Screen Designer, Neil Android.* Inside: ROM round-up, Campursoft interview. Reviews: *ZXM, Xexor*, Cart round-up.

AA97: Covertape: *Zzap Assembler, Rik The Roadie.* Inside: The best software you can get for under a fiver, a guide to debugging. Reviews: *Ultimate Sprite Searcher, Forth, Galactic Warfare, Ball Bearing.*

AA98: Covertape: *The Blues Brothers* – complete five-level game. Inside: 50 tips to make your computing life easier, Sentinel interview, Encyclopaedia Part 1. Reviews: *Disc Imager, Zack Game Creator.*

AA99: Covertape: *Stormlord, Font Editor, Grab Converter.* Inside: DTP round-up. Reviews: Homebrew software, *ProPrint ROM, Stellar Outpost*, fanzines.

AA100: Covertape: *Elite.* Inside: The Top 100 CPC products ever, a look back at 100 issues of *AA*. Reviews: *Touchdown, Page Publisher.*

AA101: Covertape: *Exolon, Home Accounts.* Inside: How to get things moving on your CPC – the complete guide to animation on the CPC, interview with Radical Software, *Elite* Masterclass.

AA102: Covertape: *Cybernoid 2, Graph Master, D+I+Y+F+X.* Inside: make some noise – your CPC's sonic capabilities, The CPC world. Reviewed: *DES* – Desktop Environment System.





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CHEAT MODE

Through the clean icy breeze of the Matlock mountains, an exasperated, muffled voice asks, "can someone get this damn sack off me?" Yep, the Matlock postal system (ie, *the* postman) has once again collapsed under the weight of your letters to the Cheatmaster supreme, Lee Rouane.

Zub

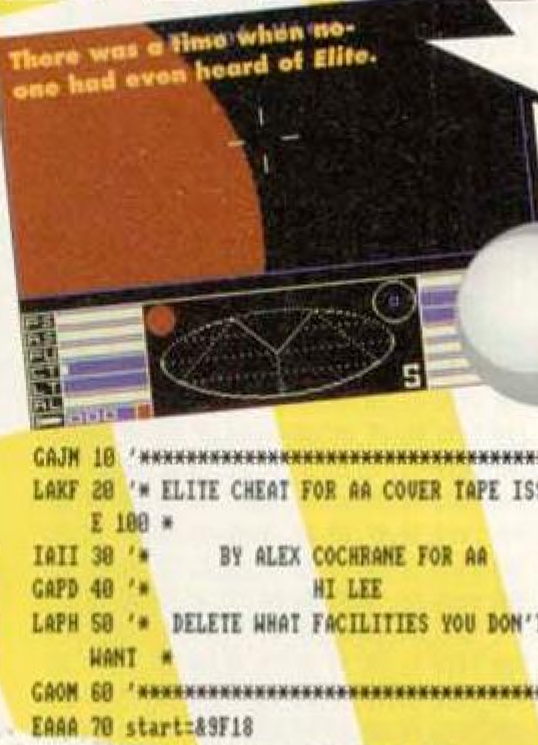
Kicking off this month's plethora of particularly pertaining cheats is our poke-penner from Perth in Scotland, Neil Henderson. Neil breathes life into that golden oldie *Zub* by suggesting that you press the CONTROL key during play for a map indicating the three teleports at the top and also a box showing the current area of play should appear in the top right-hand corner where the picture of *Zub* should be.

This cheat can be easily reversed by pressing the CONTROL key again to get things back to normal. Nice one Neil, keep 'em coming mate.

Elite

Bouncing back into the fray of cheating comes that veteran meddler and hacker, Alex Cochrane from Lanarkshire way up in the highlands. This time Alex provides you lucky people with the ultimate cheat for *AA*'s covertape blockbuster, *Elite*.

You can delete the cheats that you don't want from the listing, but obey the instructions contained in the programme. Cheers Alex, we all love yer loads.



There was a time when no-one had even heard of *Elite*.

```
GAJM 10 '************************************
LAKF 20 '* ELITE CHEAT FOR AA COVER TAPE ISSU
    E 100 *
IAII 30 '*       BY ALEX COCHRANE FOR AA      *
GAPD 40 '*               HI LEE               *
LAPH 50 '*  DELETE WHAT FACILITIES YOU DON'T
    WANT  *
GAOM 60 '************************************
EAAA 70 start=&9F18
GAKM 80 READ a$:IF a$="*@*" THEN 480
HALM 90 b=VAL("&"+a$):POKE start,b
FACM 100 start=start+1
CADM 110 GOTO 80
FAOF 120 'INFINITE CREDITS
EAKL 130 DATA 3E,21,32,E2,50
```

SOCCER PINBALL

John Bateman from Buxton enlightens us all by informing us that while playing *Soccer Pinball*, you can hold down the keys THUNDER to progress to the next round.



A playing tip for the England team – try scoring.

Exolon


AA101's cover star.

Keeping up their bombardment of the Cheat Mode offices, Tony and Donna Parker from Lowedges provide us with yet another excellent covertape poke. *Exolon* is the victim this time with infinite lives, grenades and ammo provided to turn you into a super shooter.

```
IANK  100 'Exolon Covertape Hack
IAJD  110 'By Tony & Donna Parker
GANE  120 'For AA Cheat Mode
IAIJ  130 '464 Users Remove Line 520
AAMN  140 '
IAKJ  150 DATA 3E,01,CD,0E,BC,01,00,00,CD,38,BC
IANE  160 DATA 3E,00,01,00,00,CD,32,BC,3E,01,01
IAPG  170 DATA 06,06,CD,32,BC,3E,02,01,12,12,CD
IAJI  180 DATA 32,BC,3E,03,01,1A,1A,CD,32,BC,21
IAFP  190 DATA 00,BF,CD,F8,BE,CD,18,BB,3E,C9,32
IAMD  200 DATA F4,BD,21,02,BF,11,00,40,01,00,04
IAGK  210 DATA CD,E5,BE,21,CE,BE,22,53,41,C3,00
IAMF  220 DATA 40,3E,3D,32,59,11,3E,3D,32,25,2A
IAIJ  230 DATA 3E,3D,32,7A,1F,3E,00,32,FA,12,CD
IACJ  240 DATA 00,01,3E,01,CD,6B,BC,06,00,D5,CD
JAFA  250 DATA 77,BC,E1,CD,83,BC,CD,7A,BC,C9,7E
IAAN  260 DATA FE,00,C8,CD,5A,BB,23,18,F6,6C,6F
IANF  270 DATA 61,64,65,72,1F,08,01,0F,03,3D,3D
IAJM  280 DATA 3D,3D,3D,3D,3D,3D,3D,3D,3D,3D,3D
IAKM  290 DATA 3D,3D,3D,3D,3D,3D,3D,3D,3D,3D,3D
IADK  300 DATA 3D,3D,3D,3D,3D,1F,08,02,0F,02,20
IACD  310 DATA 20,49,6E,73,65,72,74,20,54,61,70
IACB  320 DATA 65,20,26,20,50,72,65,73,73,20,41
IAEG  330 DATA 20,4B,65,79,1F,08,03,0F,03,3D,3D
IAGM  340 DATA 3D,3D,3D,3D,3D,3D,3D,3D,3D,3D,3D
IAHM  350 DATA 3D,3D,3D,3D,3D,3D,3D,3D,3D,3D,3D
IADJ  360 DATA 3D,3D,3D,3D,3D,00,F7,49,1D,D2,00
CAOL  370 DATA TAP
EACG  380 chk=0:x=&BE00
JAID  390 READ a$:IF a$="TAP" THEN 420 ELSE 400
GAOC  400 a=VAL("&"+a$):POKE x,a
HAMN  410 x=x+1:chk=chk+a:GOTO 390
HAAI  420 IF chk<>&4C58 THEN GOTO 540
LABM   430 CLS:INPUT "Infinite Lives       (Y/N)
".a$
CACP  440 GOSUB 550
HAMC  450 IF a$="Y" THEN POKE &BED4,A0
KAPE  460 INPUT "Infinite Ammo      (Y/N) ",a$
CAFP  470 GOSUB 550
HAAE  480 IF a$="Y" THEN POKE &BECF,A0
LABH  490 INPUT "Infinite Grenades (Y/N) ",a$
CAPO  500 GOSUB 550
HAOC  510 IF a$="Y" THEN POKE &BED9,A0
CANF  520 |TAPE
DAJA  530 CALL &BE00
LAAE  540 PRINT "Oh Dear, Typing Error !":END
GAMB  550 a$=UPPER$(a$):RETURN
CALJ  560 RETURN
```

Multiface Pokes

1F7A,00 Infinite grenades

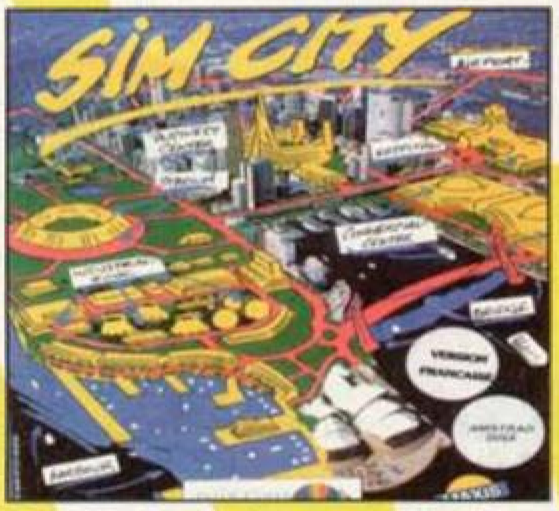

What rating do you reckon Exolon is worth, then?

The Manic multipoke mania zone

Once again two brave fellows delve deep into the Z80 bringing you great power and knowledge to help you on your quest for gaming stardom. Peter Curgenven and CB Thomas are this month's heroes. Cheers folks. As usual, the initials after the name tell you who saved your life this time. If you've discovered any pokes you want to share with the nation write to Cheat Mode, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

Game	Format	Poke, Address	Effect
Fighting Warrior (PC)	Tape	8F46,00	Arrows don't do any harm
		8DF6,00	Infinite lives
Spooked (PC)	Tape	26C2,00	Infinite lives
Zoids (CB)	(-)	6F56,No	No = number of shields
		6F5B,No	No = Number of magazines
		6F5D,No	No = number of missiles
		6F57,No } 6F58,No	No = number of power cells
Knight Lore (PC)	Tape	29C9,00	Infinite lives
Spy VS Spy 2 (PC)	Tape	AB49,00 } AB56,00	Stops timer
Spy VS Spy III (PC)	Tape	B238,00 } B22E,00	Stops timer
Sai Combat (PC)	Tape	8657,A7	Infinite lives
Short Fuse (PC)	Tape	9577,00	Infinite Lives
		91FD,00	Stops Timer

```
GAAH 140 'CONSTANT ENERGY BOMB
HANO 150 DATA 3E,3E,32,D2,30,3E,FF,32,D3,30
GADD 160 'NO ENERGY BOMB FLASH
EAGN 170 DATA 3E,C9,32,E3,30
DABJ 180 'ECM JAMMER
LAAD 190 DATA 3E,3E,32,0B,00,3E,FF,32,0C,00,
     3E,A7,32,0D,00
EABP 200 'CLOAKING DEVICE
HALF 210 DATA 3E,A7,32,5D,10,AF,32,E0,5A
FAJL 220 'INFINITE CARGO BAY
EAPN 230 DATA 3E,A7,32,AE,50
FAGN 240 'CONSTANT SPACE POD
EAFN 250 DATA 3E,A7,32,2C,46
JALF 260 'NO CARGO LOSS ON USING SPACE POD
EAOM 270 DATA 3E,A7,32,48,46
FAMO 280 'NO LASER TEMP. RISE
EAPM 290 DATA 3E,A7,32,06,07
EACM 300 'NO ENERGY LOSS
EAGO 310 DATA 3E,C9,32,BF,43
FALL 320 'INFINITE MISSILES
EAMC 330 DATA AF,32,11,46
KAID 340 'RIGHT ON, COMMANDER EVERY SHIP SHOT
EAGD 350 DATA AF,32,90,47
GAIL 360 'ONE HIT DESTROYS SHIP
EACO 370 DATA 3E,A7,32,A9,07
IAIL 380 'CONSTANT GALACTIC HYPERSPACE
EABO 390 DATA 3E,A7,32,F9,70
GALC 400 'NO HYPERSPACE LIMIT
GABH 410 DATA 3E,00,32,0D,71,32,17,71
GACF 420 'INDESTRUCTIBLE SHIP
IAMP 430 DATA 3E,C3,32,2A,13,AF,32,01,05,32,0
     6,00
JAPL 440 'STATIONS LAUNCH THARGOIDS (50 cr)
EAEL 450 DATA 3E,00,32,26,93
IAJB 460 '* DON'T REMOVE THIS LINE OK *
EAND 470 DATA CD,60,00,*0*
IAPK 480 'load loader and pokes
IABK 490 DATA 3E,01,CD,0E,BC,01,00,00,CD,38,BC
IALE 500 DATA 3E,00,01,00,00,CD,32,BC,3E,01,01
IALI 510 DATA 1A,1A,CD,32,BC,3E,02,01,06,06,CD
IAFH 520 DATA 32,BC,3E,03,01,18,18,CD,32,BC,21
IAJI 530 DATA 6A,40,CD,5B,40,CD,18,BB,06,05,21
IANL 540 DATA 65,40,CD,77,BC,21,00,BE,CD,83,BC
IAFM 550 DATA CD,7A,BC,3E,18,32,47,BF,3E,9F,32
IAHL 560 DATA 48,BF,21,2F,41,CD,5B,40,CD,18,BB
JAHA 570 DATA C3,00,BE,7E,FE,FF,C8,CD,5A,BB,23
IAIF 580 DATA 18,F6,65,6C,69,74,65,0F,01,20,20
IALB 590 DATA 20,20,20,20,20,20,45,4C,49,54,45
IABA 600 DATA 20,41,41,20,54,41,50,45,20,33,34
IAFD 610 DATA 20,43,48,45,41,54,0D,0A,0F,03,20
IACD 620 DATA 20,20,20,20,20,20,20,3D,2D,3D,2D
IADM 630 DATA 3D,2D,3D,2D,3D,2D,3D,2D,3D,2D,3D
IAFL 640 DATA 2D,3D,2D,3D,2D,3D,2D,0D,0A,0A,0F
IAFF 650 DATA 02,50,4F,4B,45,20,44,4F,4E,45,20
IAAE 660 DATA 42,59,20,41,2E,43,4F,43,48,52,41
IANE 670 DATA 4E,45,20,66,6F,72,20,41,41,2F,41
IAEH 680 DATA 26,4B,2E,0D,0A,48,69,20,4C,65,65
IAAF 690 DATA 20,61,6E,64,20,61,6C,6C,20,72,65
IABD 700 DATA 61,64,65,72,73,20,6F,66,20,41,26
IAHI 710 DATA 4B,2E,0D,0A,0A,0A,0F,01,49,6E,73
IAHD 720 DATA 65,72,74,20,64,69,73,63,20,77,69
IAKD 730 DATA 74,68,10,20,45,4C,49,54,45,20,18
IAGH 740 DATA 6F,6E,20,69,74,2E,54,68,65,6E,20
IALE 750 DATA 70,72,65,73,73,20,61,6E,79,20,6B
IAOJ 760 DATA 65,79,0D,0A,0A,FF,0F,02,4C,6F,61
IAHD 770 DATA 64,65,64,2E,20,50,72,65,73,73,20
IADG 780 DATA 61,6E,79,20,6B,65,79,20,74,6F,20
IAPF 790 DATA 65,78,65,63,75,74,65,20,70,6F,6B
IAAH 800 DATA 65,0D,0A,0A,0A,0F,03,2A,2A,44,49
IACF 810 DATA 44,20,59,4F,55,20,52,45,4D,45,4D
IAKD 820 DATA 42,45,52,20,54,4F,20,53,45,4C,45
IAND 830 DATA 43,54,20,54,48,45,20,50,4F,4B,45
IADC 840 DATA 53,20,20,20,20,59,4F,55,20,57,41
IAJH 850 DATA 4E,54,2E,44,4F,4E,54,20,57,41,4E
IACG 860 DATA 54,3F,2E,20,49,46,20,4E,4F,54,20
IACD 870 DATA 54,48,45,4E,20,52,45,53,45,54,20
IADD 880 DATA 20,41,4E,44,20,41,4C,54,45,52,20
IADD 890 DATA 54,48,45,20,42,41,53,49,43,20,4C
IAOC 900 DATA 4F,41,44,45,52,FF,00,00,00,00,00
CAMM 910 DATA *AC*
HACF 920 chk=0:x=&4000:RESTORE 490
JAIF 930 READ a$:IF a$="*AC*" THEN 960 ELSE 940
GAND 940 a=VAL("&"+a$):POKE x,a
HAFO 950 x=x+1:chk=chk+a:GOTO 930
HANI 960 IF chk<>34096 THEN GOTO 980
CAGO 970 CALL &4000
KAGO 980 PRINT "Data Error Old Bean ...":END
```



No matter how bad you are at Sim City you could never produce a worse mess than Bath's one-way system.

Sim City

Darren Dodds from Ponteland, Newcastle, writes asking, nay, begging for Cheat Mode to reprint John Girvin's *AA65 Sim City* poke. Here's the poke Dazza, but as for your queries on how to build a metropolis and what the gene codes are for, we are at a loss. Perhaps some power-craving reader can enlighten us on these points?

Are you befuddled by listings?

Don't panic if you're new to listings. There's a full explanation of how to type in the darned things and what the four-letter codes at the beginning of each line mean in the Type-Ins section which starts on page 30.



Look, none of us here are motor racing fans, so if this picture has nothing to do with Nigel Mansell, tough luck.

Nigel Mansell's World Championship

For those of you struggling with your chicanes, or having problems with your pit stops, Chris 'Mansell' Jones from Goosnargh (sounds painful) has supplied a complete set of tips to take you through *Nigel Mansell's World Championship*. Up the walrus moustache.

- If you are an experienced player then don't begin the game on Normal because you

Poking the multiface way

1 Make sure you've got a Multiface plugged into the back of your CPC – it helps.
2 Load the game as normal.
3 Press the RED button on the Multiface.
4 Press 'T' for tool.
5 Press '*' to select the code.
6 Press 'H' for hexadecimal input.
7 Press SPACE for input.
8 Type in the address (ie, 3A7C).
9 Type in the POKE (ie, A7).
10 Press RETURN.
11 If there is more than one poke then go back to step seven.
12 Press ESC to get back to the menu.
13 Press R to return to the game.

```
GAIP  1 'SIM CITY hacks (disc)
FACH  2 'By John Girvin
EALD  3 'October 1990
AALH  4 '
BAHP  10 MODE 1
FACE  20 addr=&40:RESTORE
DAHJ  30 READ byte$
IAAH  40 IF byte$="METROPOLIS" THEN 70
HAMD  50 POKE addr,VAL("&"+byte$)
GALE  60 addr=addr+1:GOTO 30
IADP  70 PRINT"Infinite cash (Y/N) ?"
GAFH  80 WHILE k$<>"Y" AND k$<>"N"
GACG  90 k$=UPPER$(INKEY$):WEND
IAJO  100 IF k$="Y" THEN POKE &68,&C9:CALL &40
IAHN  110 INPUT"Initial funds ? $",x
EAFF  120 y=INT(x/65536)
FAKJ  130 z$=HEX$(x-y*65536,4)
HAMH  140 POKE &59,VAL("&"+RIGHT$(z$,2))
HAGD  150 POKE &5E,VAL("&"+LEFT$(z$,2))
FAKD  160 POKE &63,y:CALL &40
GADN  170 '*** LEAVE ALL LINES IN ***
GAPJ  180 DATA 11,00,01,cd,75,00,11,00
HAND  190 DATA c0,cd,75,00,f3,21,00,c0
GAKP  200 DATA 11,00,a0,01,00,38,ed,b0
HAJE  210 DATA 3e,20,32,d8,2e,3e,4e,32
HAHH  220 DATA d6,2e,3e,00,32,d4,2e,3e
HAIA  230 DATA a7,32,3a,11,c3,12,04,a4
HAFB  240 DATA 48,4c,46,0a,5a,21,8b,00
HACO  250 DATA 06,07,d5,cd,77,bc,e1,cd
HADO  260 DATA 83,bc,cd,7a,bc,3e,48,32
HAAC  270 DATA 8d,00,c9,41,44,4c,2e,42
HABC  280 DATA 49,4e,METROPOLIS,4a
```

Infodroids

Some inside knowledge now, as we reveal all the codes for the junction rooms and garages for all 15 causeways (*Eh? – Ed*) in that maddening game, *Infodroids* (which must have had the purplest advert ever seen in the mag). Christopher Marland in Swinton is the man to thank for this little lot. No there's no excuse for not reaching the end of the road.

Junction Rooms

Great Circular	000	<-->	Zen Meridian	010
Great Circular	032	<-->	Mandala Radial	010
Great Circular	064	<-->	Tao Meridian	138
Great Circular	128	<-->	Zen Meridian	138
Great Circular	160	<-->	Tsang Radial	010
Zen Meridian	046	<-->	Epsilion Arc	036
Zen Meridian	074	<-->	Tao Meridian	074
Tao Meridian	110	<-->	Delta Arc	040
Great Circular	192	<-->	Tao Meridian	010
Great Circular	224	<-->	Tri Radial	010
Epsilion Arc	010	<-->	Tri Radial	055
Epsilion Arc	062	<-->	Mandala Radial	055
Mandala Radial	035	<-->	Delta Arc	010
Mandala Radial	022	<-->	NE Quadrant	033
Sigma Arc	062	<-->	Drutti Radial	055
Delta Arc	070	<-->	Drutti Radial	035
Drutti Radial	022	<-->	SE Quadrant	030
Drutti Radial	010	<-->	Great Circular	096
Tsang Radial	022	<-->	SW Quadrant	030
Tsang Radial	035	<-->	Gamma Arc	070
Tri Radial	022	<-->	NW Quadrant	033
Tri Radial	035	<-->	Gamma Arc	010
Gamma Arc	040	<-->	Tao Meridian	038

Garage Locations

Great Circular	013
Great Circular	150
Tao Meridian	031
Great Circular	041
Great Circular	230
Epsilion Arc	055
Great Circular	080
Sigma Arc	031
Noreast Quadrant	010
Souwest Quadrant	023
Soueast Quadrant	020

Spellbound Dizzy

We featured a keypress cheat in issue 98 for that eggs-abound adventure *Spellbound Dizzy*. After a couple of queries about the cheat, noticeably from David Cook in County Antrim, here it is again to clear up any confusion.

Press SPACE to start the game then press Q to quit. Type IWANTANOMLETTE (don't be tempted to put in any spaces) very quickly on the title screen and the border should flash to tell you that the cheat is active.

While playing the game, pressing C will bring up a rather nifty cheat menu. Hope that has cleared the problems up. Sorry things got a bit scrambled the first time around (groan).



Deep in the jungles of South America there are undiscovered tribes of pygmies who have conversations about which is the worst *Dizzy* game ever released.

Get into the mode

Stuck on a game? Or have you discovered a cheat or hint that other people should know about? Then write to: Cheat Mode, *Amstrad Action*, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.



Amazing – the world-famous racing siamese triplets celebrate another victory.

will find it ridiculously easy. If this is the case, start on the Professional level.

- Before starting the race you must pick the correct gear ratio – this is very important!
- If you have never driven around the circuit you are about to race on, check what it looks like before-hand by remembering your code then loading up again and racing on that circuit.
- Otherwise, go to the circuit you require and you will be shown a picture of it. If there is a very long straight at the start then you should use a high gear ratio because before you get to the end of the straight your speed will have reached the maximum, which is higher than any of the other ratios' maximum speeds.
- If the straight is a short one use a mid gear ratio as the acceleration is faster enabling you to get ahead of the other cars at the beginning.
- Never use the low gear ratio as the speed is just too slow to be any use.
- If you are not at the start of the grid try again as coming from behind is a dead loss.
- Always write down the long code, and try not to lose the paper it is written on.
- Always stop to change your tyres exactly half way through the race regardless of the condition of your tyres.
- When you're pulling in to the pit lane, try to be in front of the car behind you by at least four or five seconds.

With these tips you should be a centipede-on-lip speed demon in next to no time.

Who the Elm does he think he is?



Elmar Krieger as he would look in an ambient techno music video.



Super Cauldron shows how good CPC games can be.

Having conquered the CPC games scene in 1993 with two superb commercial releases and one of the most controversial PD games ever, Austria's second most famous son could well be Elmar Krieger, aka Elmsoft. Keith Woods braves the singing nuns to let the man responsible for the notorious *Zap'T'Balls* have the right to reply...

Having coded the games *Zap'T'Balls*, *Super Cauldron* and *Prehistorik 2*, which were probably the three best-selling CPC games of 1993, the Austrian Elmar Krieger could rightly claim to be the most successful CPC coder of recent times. He's also got a string of PD games, demos and utilities to his credit, which are among the most popular doing the rounds.

Not bad going for a 20-year old, especially when you consider that in between all this work he still manages to find time to study technical mathematics at university. So we thought it was about time we spoke to this prolific CPC celebrity, and ask him about his life, his work, and, just to prove that AA is always willing to offer the right to reply, his feelings on the AA *Zap'T'Balls* review, which provoked a remarkable amount of controversy, despite the fact that *Zap* was awarded a coveted AA Rave (so let this be the last we hear of it). Anyway, let's get on with the interrogation...



Before Jurassic Park there was Prehistorik 2.

How did you become interested in coding?
When I was 10, way back in 1984, my father bought a TI 99/4A, but no games were available for this machine. Other kids really wanted to play, so I learned to transfer games like *Pac-man*. The reason I went on to learn machine code was to learn how to code demos.

Would you say learning machine code is a particularly difficult thing?
Compared to CPC Basic, yes, of course it is – but if you look at the recent C Compiler for personal computers, with a few thousand pages of documentation, machine code is rather simple.

Your first commercial product was, of course, the game *Zap'T'Balls*. What inspired you to write this game?
I offered to convert *Pang* for Ocean Software to the normal CPC (*Pang* was only ever released on the Plus) for a very small sum of money, and when they said no I had already spent too much time working on it to stop the project.



We're not worthy, we're not worthy.

It wasn't, then, just to accommodate all your 'flashy special effects', as has been suggested in some quarters?
No, that's simply not true! There are lots of special effects in the intro and the title screen, but the game itself concentrates on gameplay.

As you know, there was quite a bit of controversy over the review *Zap'T'Balls* got in *Amstrad Action*. Were you particularly upset by this review?
It wasn't the actual review of the game that offended me, but rather sentences like, "try to avoid writing something dull like *Zap'T'Balls*" which appeared in the next few issues. The review itself was simply a major disappointment, and it would seem that many people share my opinion.

Why was this, because it has to be admitted that the review was not a bad one, and that 85 per cent, which many people, yourself no doubt included, felt could have been a bit higher, is not in itself a bad mark?
In many magazines 85 per cent is a really good mark, but in AA so many games which, in my opinion, were dreadful, got over 85 per cent (*I wish he had qualified this remark – Dave*), that it seemed somehow ridiculous.

The comment has also been made that *Zap'T'Balls* lacked the in-game features that made *Pang* so playable. What's your response to this?
Not true! Okay, *Pang* did have some extra weapons, but *Zap'T'Balls* more than made up for this by offering additional features such as many different types of ball movements, snow and sand storms, snow guns, spikes and elevators which added much more to the gameplay than extra weapons.

You also coded the brilliant *Super Cauldron* and *Prehistorik 2*, which both scored a massive 96 per cent when they were reviewed in *AA*. They both came out last year. Have you or Titus got any new releases planned for the CPC this year?
I haven't got anything on the way for the CPC, but I will, however, launch *Prehistorik Man* on the Gameboy in May this year. It's a conversion of *Prehistorik 2* on the CPC – even the music has been transferred from the CPC!

Finally, what do you think of AA reaching 100 issues, and what future do you see for the CPC in general?
It's simply great what AA has achieved. It means it is now the only high-street CPC mag left, and I urge all the readers to keep it alive. It's far more interesting than the usual console stuff. As for the CPC, without doubt, it has no commercial future, but hopefully it will continue as a computer that allows everyone to get in touch with coding easily. That's something consoles can't do.

Thanks Elmar, and good luck with the launch of *Prehistorik Man*.

Dear AA: Aussie Action

Just a few comments on CPCing down under. I believe that it must be widely thought by publishers and software suppliers in the UK that the colonials in Australia are uneducated morons who can be taken down for a few extra quid.

Your subscription rate for Australia is more than double that paid by the privileged subscribers in the UK. On the current exchange rate it costs us poor colonials $140. The present cost at our local newsagent is $8.75 per copy or $105 for a year.

I feel sure that many CPC users in the southern hemisphere would be willing to wait for surface mail delivery of your publication if the subscription was at a more reasonable rate. The only problem with trying to purchase *AA* from the newsagent is that they have often sold out.

As for the software suppliers in the UK, some don't want to deal with the southern colonials, others add VAT and charge about double the airmail postage. However, there are some, bless 'em, who shoulder their responsibilities and charge their advertised price, plus the cost of postage.

Since the demise of the Australian Publication *The Amstrad User* there has been no effective marketing of the CPC and PCW software or peripherals. To my knowledge there are only two firms in Australia offering dedicated support for CPC and PCW users. One of these, QUE Software, is in Tasmania; the other, Tronics North, is in Queensland, about 3,000km north of Tasmania.

May your magazine meet many more deadlines.

Kev O'Sullivan, Australia.

There's no question of us trying to rip anybody off, anywhere in the world. While I wouldn't try to understand our distribution department's thought processes, I can assure you that if they thought dropping the price would increase sales they would. The reason it costs less to buy the mag from your local newsagent is because he can order magazines from the UK in bulk. For us to send individual copies abroad costs a lot more per issue. Sorry, but that's the harsh economic facts.

Thanks for the info about the CPC scene down under. It's a shame it arrived too late for last month's World feature, but there's an update in the pipeline. **Dave**

React

Send your letters to: Reaction, Amstrad Action, 30 Monmouth

Dear AA: Type-ins on tape?

Looking back through the years I have seen the development of *AA* and the demise of others in the CPC world (bad for us, you must agree, but not for you).

Your magazine has a fairly balanced mixture of serious and games articles, but there are some points that leave a bad taste in my mouth. I have noticed over the last few months several changes for the worse, the worst of which is that the type-ins have been taken off the covertape.



I feel most strongly about this, especially after I typed in the *SafeSoft Disc Archiver* from issue 101 and found that only the first two lines of the main screen appear. I also typed in the *Typechecker* and on using it found all the letters correct in the checksum.

I feel this is the perfect example FOR having the type-in files on tape – at least we wouldn't spend hours wasting our time on programs that do not work.

I buy your sister magazines *Amiga Format*, *Amiga Shopper*, etc, for a few pence more and get many more pages and two packed disks, so you can't say that the cost is a reason for not putting type-ins on tape. Don't dictate to us through one person's decision, put it to your readers – let us decide if we want the type-ins on the tape (we keep the mag alive by forking out our £2.95 every month). Let's have a readers' poll on this issue to settle it once and for all.

This is not sent to you in bad faith, so let's have no coy remarks.

If you do not print this letter in the magazine then I presume that you have no wish to listen to your readers nor care about their freedom of choice.

Mr C Johnson, Eastbourne.

The demise of anything CPC-related, and that does include other magazines, is never good news for us. We would love for there to still be a buoyant CPC market with loads of friendly competition between companies. Yes, we are proud to be the one surviving CPC magazine, but we would still rather be the best and biggest-selling CPC magazine.

Regarding the type-ins, the reasons they were removed from the covertape were complex and not based on a whim. Personally, I still think that having them on the covertape was an example of laziness on both the magazine's and the readers' behalf – they were an easy way to fill up the covertape and meant you didn't have to bother typing them in at all, which is a rather bizarre concept – type-ins you don't type in?

As for the cost of the magazine, that is a factor. Amiga magazines you mention sell a lot more copies than *AA* (sad fact of the times) which means they bring in a lot

Dear AA: Blasts from the past

1 You're doing an unbelievably good job. And it's the truth when I say *AA100* was by far the best *Amstrad Action* yet.

2 Whatever happened to such trademarks as *AA* Rave and *AA* Mastergame? And what about second opinions and the first day target scores?

3 I agree with Alastair White (*AA100*). You should review older games such as *Purple Saturn Day* and *Uridium*.

4 Does the tape poke cheat for *Elite* (*AA97*) work on the *Elite* given with the covertape?

5 In the listing *Laundry Blues* were there any faults? I typed it and ran it but I couldn't pick up any objects. I have double and triple checked it but can't find anything wrong.

6 What exactly is Public Domain?

7 You could sell photocopies of pages from the early magazines for reasonable prices and everyone would be able to see early *AA* in all its glory. Dave would have endless fun plugging them in other



Do you want to see classic AA pages like this reprinted?

Dear AA: Not accountable

First I would like to congratulate you on the magazine. When I bought *AA*83 (with *Lemmings* on the covertape) I didn't think that much of it. But when I bought issue 100 and later issue 101 it had improved dramatically. If it stays like this I will definitely subscribe.

Secondly, and this isn't so complementary, on your covertape in issue 101 you had a program called *Home Accounts*. I have three things to ask:

1 Why the heck was the program not in the right order? Once the first two sections had loaded for the third to load the tape had to be rewound virtually back to the beginning.

2 What happened to the sample file which you mentioned in the article on the program?

3 Lastly – you said what each of the menu titles meant and what was in each menu, but you didn't explain how to use the program, what to do and to what extent the program could be taken.

Please explain and perhaps rectify.

Samuel Byford, Thundersly.

PS Why not give away free subscriptions with all the best letters (perhaps starting with mine?).

PPS Keep up the brilliant work – you're the only real magazine the CPC has got.

1 Sorry about the problem with *Home Accounts*. We did, in fact, spot the problem and asked told our duplicators to swap the files around, which, unfortunately, they failed to do. Luckily the program did still work if you managed to figure out the simple (if time-consuming) solution, like Sam here did. The best thing to do is to actually re-record the program onto another tape with the files in the correct order. Alternatively you could order the disk version which works fine.

2 Yes the file did go missing (again our duplicators seem to have made a unilateral decision to leave it off). Luckily it wasn't an important file and didn't affect the running of the program in any way.

3 We have limited space in the magazine to explain the programs on the tape – it is a problem of which we are acutely aware. We try to be as concise as possible while covering all the most important points. Perhaps in this case we needed to go into more detail. We are currently looking into providing some more in-depth information on the program for people who want it. Stay tuned. **Dave**

ion

Street, Bath BA1 2BW

more money. This enables them to keep their prices down while having larger page counts and more disks. The problem with putting type-ins on the tape is they mean we have to make the tapes longer which makes the tapes, and comsequently, the magazine more expensive to produce. Sorry, but I don't think the benefits of putting the type-ins back on the tape balance out the potential cost.

By the way, see Type-Ins on page 28 for a possible explanation of your *SDA* problem.

And I won't make any coy (*Koi, adj, Bashful, affectedly* shy) remarks but how about an disgruntled one? I'm amazed by your final comment. The magazine is produced purely for the readers. If we didn't take their views into account we would have closed down years ago. Okay, as a commercial venture *AA*'s first aim is to be profitable, but to make it profitable it has to give readers what they want. **Dave**

Dear AA: Equal and opposite

I'd like to respond to PDJ Dennis' Violent Reaction in *AA*101. In contrast to PDJ I have made many purchases by mail order and received quick and courteous service. Yes, you do have to be careful who you order from, especially new companies (except mine, of course which is perfect in every way). Maybe it's something to do with PDJ's attitude – you get much better results by being pleasant rather than having a rant at the poor person at the end of the phone (who – quite rightly in my opinion – might have a rant back). The delay could be down to any number of reasons. The longest I have taken to fill an order is two weeks and that was due to the typesetters and printers taking ages to supply me with the instruction booklets needed to go with the game. The usual delivery time is more like a few days, depending on how long it takes the cheque to clear. Orders using postal orders will be sent by return of post.

By the way I've got a lot of mags which I have to sell off so that I can actually get into the house (*ACU* and *CPC Attack*, and some *AA*s – not issue 99 – guess why?) and I've got the same problem with old tape-based games.

One final thing – buy *Stellar Outpost*, it's great. £4.99 on tape and £6.99 on disk. Phone me on 0527 68419. Go on punk.

Angela Swinbourne, Crystalix Software.

sections of the mag. I for one would like to see what the early issues were like.

8 What do you think of this printer (clue: it's a Star LC-100)?

Ronan Lyons, Dublin.



Can anyone remember which issue this page came from?

1 Gee, shucks, thanks.

2 Well, the *AA* Mastergames have been revived (sort of) as the *AA* Past Mastergames that we put on the covertapes (past masters – geddit?). The *Fluff* review in this very issue has second opinion boxes. As for *AA* Raves and first day target scores, they have been pensioned off.

3 Hopefully the current The Good, The Bad and The Ugly series of features satisfies your lust for reviews of old games.

4 Unfortunately not, but check out this month's Cheat Mode for one that should.

5 Our version (which is exactly the same as the one published in the magazine) works fine.

6 By a strange quirk of fate our PD man Keith Woods has answered this very question for you on page 26.

7 I like this idea in theory, but maybe it'd be better to just reprint a few 'classic' pages from early issues in the mag itself. How does that sound? A cop-out page-filler or something you lot would be really interested in? Let us know.

8 I've never met a Star LC-100 printer I haven't liked. **Dave**

Dear AA: Hold on

In response to Alastair White's dilemma (*AA*100) I had the same problems with flickering screen when I bought Rastan. I tried everything I could think of to stop the flickering, but nothing seemed to work. Eventually, in desperation, I twiddled about with the holds and, hey presto, no more flickering. So, Alastair, you could try turning the vertical or horizontal hold depending on whether you have a monitor or TV modulator.

Also, I have discovered an additional undocumented (undocumented in the magazine, at least) command for the Zapp *Assembler* (supplied on *AA*97). To erase a routine from memory type: *NEW (funnily enough) and you'll be able to start afresh. I thought I'd point this out just in case anyone else hasn't discovered it yet.

Rob Davidson, Yeovil.

When we gave away the program, we made the

decision to just give you the very basics as opposed to giving over most of the mag to instructions. There are quite a few more undocumented (in *AA*) commands, so I'll probably devote Assembly Line to them next month. **Simon**

Vive la difference

I have bought *AA* for just over a year and I have a few questions I would like to ask.

1 I bought *Elite Gold Edition* for £2 from a local John Menzies six months ago. When I load it up the Cobra ship rotates and the music plays, but no matter what I do I cannot access the next stage. Have you got any ideas what I'm supposed to do?

2 What is the difference between *Elite Gold* and standard *Elite*?

3 I own a 464 Plus and bought *OCP Advanced Art Studio* with a mouse and 64k upgrade from Datel. I also bought the required widget from Wave. But when I set up the system, if I bang the table with my knee the program freezes. I think it has something to do with the connections forcing the mouse interface and 64k upgrade a few millimetres off the table which means that they're unsupported (design fault?).

4 Through playing two-player games with my brother we constantly fought over who got the joystick instead of the keys. To be able to use two joysticks with games which allow you to redefine the keys for player two but only allow one joystick, plug joysticks into both ports and select redefine keys. For player one go through the usual motions; for player two do the same on the second joystick and it will accept them as though you had pressed keys. Voila! Two joysticks.
Richard Grant, Argyll.

PS Keep up the good work.

PPS Either I am going blind or the words Dave and Cheatmode are missing from the wordsearch in *AA*101.

1 We reckon you must have a Plus Machine of some sort. *Elite* doesn't seem to work on some Pluses for some strange reason (as we found out when we put the game on the covertape and had to spend ages getting the darned thing compatible).

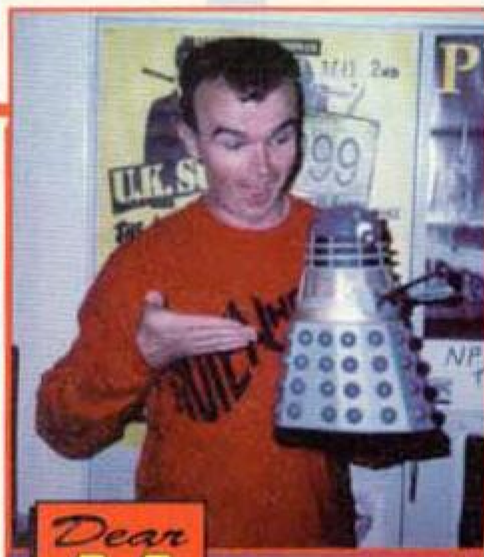
2 Not much, actually. *Elite Gold* is more like a refined version of the original game rather than a sequel with loads of extra features.

3 I think the problem is just some loose wires as opposed to a design fault – your 'unsupported' theory sounds a tad unlikely. But if anyone else wants to write and and prove me wrong, feel free.

4 Er, have you ever thought of doing a spot on *The Big Breakfast*'s Superhints ("your guide to a better life") with that one? **Dave**

PS We'll try.

PPS Clur compiled the wordsearch and she's always trying to get rid of me.



He was a strange chap that Andy O, but he knew how to knock together eight-bit computer mags.



Sussed

Andy – you used to work for *Your Sinclair*, didn't you? Ha ha ha.
Colin McCracken, Co Wicklow, Eire.

He also used to work for *Amstrad Action*. **Dave**

Don't bin it

When I load up *Elite* the file ELITE.BIN loads up but it accesses the disc drive (I have a 6128) and complains that there isn't a disc in the drive. How can I load *Elite* up?
Paul Ralph, Malvern.

Paul, and any other 6128 owners who are having similar problems with *Elite* from our *AA*100 covertape should try using the listing that Simon has knocked up for you in this month's type-ins. **Dave**

Don't knock it

Oh no! Not another covertape loading solution! 'Fraid so. This popular irritation just won't go away, will it? Covertapes fail to load on my machine without fail, but I've found that tweaking the pressure pad in the cassette at each corner of the copper strip does the trick. I have had 100 per cent success with this. Don't ask me why it works, but it does. But be careful not to spring the pad right out because it takes a right fiddle and as many expletives as you can think of to get it back in. Make sure the tape is rewound first to avoid damage.

Another thing which has worked is to re-record the program on to another tape. Again, I don't know why, but it works. You'll need a twin deck for this, by the way.
Paul Lovett, Birmingham.

Sounds like something out of *The Twilight Zone*. Deeply weird. **Dave**

Both sides of the story

A plea

Please, please, please don't put RPGs on the covertape.
Martin Williams, Poole, Dorset

You don't like RPGs then? Dave

Cheat

1 In *Elite*, do you think it's cheating to write down all the market prices of the various planets so you know where you can make a profit?

2 Where can I get hold of a good quality black and white printer and a three-inch disc drive for the CPC464?

3 I am a big fan of RPGs. Would you put *Laser Squad*, *Bloodwych* or *Lords of Chaos* on the covertape when you have finished the Cecco games?

4 A few months ago I purchased a copy of *War In Middle Earth* by Melbourne House from Wizard Games. I have, unfortunately, experienced problems with the game and I want to send the game back to the company and get a replacement copy. On the back of the case it tells you that Melbourne House is a member of the Virgin/Mastertronic group of companies and it gave a phone number. Whilst looking in the Amscene Directory I saw Virgin's phone number, but it was different to the one on the game case. Which number do you think I would be best contacting?

Thanks for a truly great magazine. Keep up the good work.
Michael Hunkin, Saltash.

1 No, it's good business sense.

2 Try Wave Electronics on 0229 870000.

3 But Martin Williams told us not to.

4 Virgin's current number is the one printed in Amscene – 081 960 2255. **Dave**

Opinion over RPGs is divided.



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NEXT MONTH

The next issue of AA will be born under the sign of the bull, so let's see what the stars have in store...

★ A conjunction of Mars and Venus suggests a strong possibility of an in-depth look at the current state of the **Public Domain.**

★ A lunar eclipse on the cusp guarantees **Zynaps** on the covertape.

★ A conflict is brewing. Could it be resolved in a ***Street Fighter 2*** campaign update?



★ With the moon entering Uranus, oo-er (© Carry On gags 1967) a round-up of sports sims is in the offing.

Will it come true or is this astrology stuff just a load of old bull. The only way to find out is to be here on...

Thursday 21st April 1994

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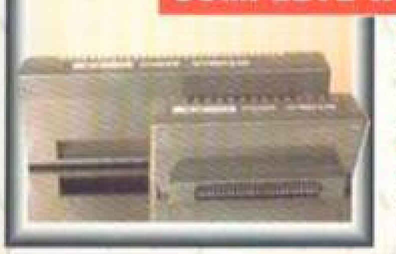
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